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Influences of Product Design on Consumer Behavior

An Exploratory Study

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Master's Thesis in Marketing and Brand Management

NORWEGIAN SCHOOL OF ECONOMICS

This thesis was written as a part of the Master of Science in Economics and Business Administration at NHH. Please note that neither the institution nor the examiners are responsible – through the approval of this thesis – for the theories and methods used, or results and conclusions drawn in this work.

Executive Summary

In recent years the world has been witnessing a tremendous change in the sportswear industry when it comes to product design. In the sportswear market today, product design is considered an important strategic tool for creating product differentiation and customer value. It is no longer enough for a sportswear brand to be either fashionable or functional, it needs to be both! Superior design draws customer's attention and makes the products stand out from others. Thus, organizations should use resources on designers due to how they believe that good design improves financial performance. A highly competitive market calls for products that offers designs with both functional, aesthetic and symbolic value that offers contextually congruent design and fits with the preferences and tastes of the consumer.

However, there exists limited empirical research on product design and design issues. This thesis aims to provide a better understanding of how and what managers should think of when producing and promoting sportswear to consumers. The model in this thesis draws from established frameworks in the product design literature, where the core of the model is based on the product design scale of Homburg et al. (2015). The model further adds relevant extension based on findings in existing product design literature of contextually congruent design and centrality of visual product aesthetics.

The conceptual model is tested based on an online questionnaire (N=225). The results reveal that consumers mainly form purchase intentions and word of mouth communication of sportswear based on brand attitude. Moreover, the social context plays a major role in shaping purchase intentions. Furthermore, only the aesthetic dimension of product design has a significant influence on brand attitude. In addition, it shows a positive influence on the functional dimension of product design. Overall, the constructs investigated in this thesis explain a high degree of the variance in purchase intention (66,4%) and word of mouth (37,7%). The thesis concludes with theoretical and managerial implications in addition to suggestions for future research.

Preface

This thesis is written as a part of our Master of Science in Economics and Business Administration at the Norwegian School of Economics (NHH). The thesis is written within the field of Marketing and Brand Management.

We would like to extend a special thanks to our supervisor, Herbjørn Nysveen. During our work with this thesis, he has been a valuable source of knowledge and constructive criticism. His feedback was very helpful, and his guidance has been both useful and educational.

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1. Introduction

1.1 Practical Background

In 1926 British Vogue announced that “sport has more to do than anything else with the evolution of the modern mode” (Craik, 1993, p. 96). Up to the beginning of the twentieth century sportswear looked almost identical to work or everyday wear. In the mid of the twentieth century however this started to change. Focus on the aesthetic appearance on this type of clothes gradually entered into the picture, and from the early 90's and onwards the focus on how to design and produce sportswear have changed drastically (Bruun & Langkjær, 2016).

Until the late nineties almost every football player wore black football boots. From the early 2000s, on the other hand, one started to notice a growing acceptance of colored football boots together with an increasingly amount of outrageous color combinations. In recent years, football boots with crazy color combinations has become a fully established part of the game. Today, it is the black shoe that has become the rarity in an otherwise sea of colors (Thompson, 2016).

This is one example, of the relatively radical changes we have been witnessing in the sportswear industry in recent years. In general, there have been a tremendous change in how the sportswear industry is working to please the market (Warner, 2006). The fact that consumers have taken the sportswear out of the gym and into their day-to-day wardrobe has more or less transformed the market. This latter “trend” has in fact created a new product category, which usually is referred to as activewear, that has taken off in both the fitness and the fashion industry (Activewear, 2005).

1.2 Theoretical Background

It becomes clear that the days where sportswear should be functional and only that is long gone. The visual form of products has risen from being just an afterthought in product development to become the key driver of success (Hoegg & Alba, 2011). Historically, product design has often been thought of as a process for creating functional differentiation. However, in the market today, product design is increasingly being considered as an important strategic tool in creating preference and value for the customer (Noble & Kumar, 2008). Noble and

Kumar (2008) argue how some design elements are more likely to create functional product differentiation and transactional consumer outcomes, while other design strategies tap into a more emotional form of value creation. It is no longer enough for a sportswear brand to be either fashionable or functional, it needs to be both! The sportswear needs to be balanced if the product or brand is to have any success in what has become a highly competitive market (The Unique Group, 2016). Competitive markets call for products with designs that deliver benefits that go beyond functionality, by offering designs with more valuable aesthetic and symbolic benefits (Candi, Jae, Makarem & Mohan, 2017).

Superior design draws customer's attention, makes the products stand out from others and increase the probability of it being consumed (Creusen & Schoormans, 2005). Thus, organizations use industrial designers because they believe that good design improves financial performance (Hertenstein, Platt & Veryzer, 2005). But what exactly is driving the popularity and profitability of sportswear? And to what extent does the product design and appearance of the sportswear we buy matter?

Even though design is a research priority for the Marketing Science Institute today, it is yet not a well-established field of academic inquiry (Bloch, 1995; Bloch, 2011; Homburg, Schwemmler & Kuehnl, 2015; Luchs & Swan, 2011; Veryzer, 1995). Thus far, empirical research has measured product design in a very limited way (Homburg et al., 2015). Homburg et al. (2015) argues that despite product design's high practical relevance, both academics and practitioners lack knowledge regarding (1) a widely accepted definition of product design and its dimensions that is applicable across a broad range of product categories, (2) a sufficient measure of it that is independent of product categories, and (3) a systematic investigation of design outcomes that distinguish the different dimensions. Thus far, product design research has looked at product design through various dimensions. The table in Appendix A provides an overview over central empirical studies of product design and its dimensions. It summarizes some of the research gaps in the literature on product design and shows how our master's thesis contributes to these gaps.

1.3 Positioning and Research Questions

The physical form or design of a product is without doubt an extremely important determinant of its marketplace success. In fact, in a survey of senior marketing managers, design was

mentioned as the most important determinant of new product performance by 60% of respondents (Bloch, 1995). According to Holbrook (1980) aesthetic sensibilities in modern society are relevant to all products, regardless of their function. Product design is considered a broad term, however, Homburg et al. (2015) suggest that product design can be conceptualized and measured in a simple way. Where product design should be considered a multidimensional concept consisting of the functional, aesthetic and symbolic dimensions (Homburg et al., 2015).

Due to how competitive brands nowadays have the same technology, price, fabrics and performance, product design is especially important in the marketplace. Why? Because product design has become a principal mean of making products differentiable (Homburg et al., 2015). Thus, the design of a product is the only thing that distinguishes them from competitor's and helps gain recognition in the market (Bloch, 1995; Schmitt & Simonson, 1997). Moreover, several studies examine and adds the focus of their research on functional and aesthetic design, sometimes referred to as hedonic and utilitarian design, and thus pay less attention to the symbolic design dimension (Candi et al., 2017). Candi et al. (2017) explain how the latter could be due to the elusive nature of the symbolic dimension or because symbolic value is realized idiosyncratically. It becomes clear that product design also serves a symbolic role that influences consumers product perception, valuation and comprehension. Furthermore, consumers form relationships with products through its design, hence product design has been found to be a central source of product attachment (Brunel & Kumar, 2007).

Several studies show a significant relationship between product design and central outcomes of consumer behavior, such as brand attitude, purchase intentions and WOM (Candi et al., 2017; Homburg et al., 2015). In this thesis, we will base the foundation of our research on the "Product Design Scale" of Homburg et al. (2015). This to determine to what extent the three product design dimensions; aesthetics, functionality and symbolism influences consumer's brand attitude, purchase intention and WOM towards sportswear. According to Homburg et al. (2015), the design dimension model with the dimensions aesthetic, functionality and symbolism explains 69 % of the variance in product design. Hence, we ask the following research question:

RQ1: To what extent does the three dimensions of design; aesthetic, functionality and symbolism influence brand attitude, purchase intentions and WOM of sportswear?

Furthermore, not all the variation in these outcome variables can be explained by aesthetics, functionality and symbolism. Thus, there might be relevant with some extensions to the model to study the influences of product design on brand attitude, purchase intentions and WOM of sportswear. In many contexts, various forms of congruence have positive influences on consumer's evaluations (Fleck & Quester, 2007). Bloch (1995) argues that product forms that are congruent with other individual's preferences and tastes are assessed positively, whereas when congruence is low reactions are more negative.

According to Bitner (1992) products should blend in with the surroundings in which they are used. Crilly, Moultrie, and Clarkson (2004) pinpoint "the context of consumption" (p. 554) and argue that this context influences the interpretation of design messages. Fleck and Quester (2007) indicate how the core of congruence in marketing is in fact how some things go together while others simply clash. Bitner (1992) further elaborate on how hotels built in an urban area should be designed in a way that makes them reflect the urban area in which they are located in. In other words, how products should be designed to blend in with the surroundings in which they are used.

Bloch (1995) explains how product reactions also may be shaped by situational factors such as the social setting and/or the sequence effects. Situational variables can affect both psychological and behavioral responses to product form (Bloch, 1995). According to Bloch (1995) the sequence effects concerns how a consumer's reaction to a specific product design can be modified by other products that the consumer owns. The design of a product can be received positively when assessed alone yet be disliked or avoided due to its poor fit with previously obtained products (Forty, 1986 as referred to in Bloch, 1995).

Furthermore, the social context or setting can influence consumer responses. This is based on how the persons who are present during a consumer's encounter, purchase or display with a product may influence the consumer's reactions to that product (Bloch, 1995). Thus, consumers might change their opinions about objects in the presence of others. Bloch (1995) points to that the effects of situational factors are well established in consumer research. However, he also points out that little empirical research has been done regarding how the design of a product fits in with the context.

Thus, a second category of drivers that could be interesting to apply to the model, is contextually congruent design, which we have decided to divide into the physical context and the social context. With this driver we wish to study if people have a desire to use/wear/buy sportswear that fits into the context in which they are located at a given time? Further, we want to study if the social context has an effect on a consumer's behavioral responses. Thus, this leads us to the second research question of this study:

RQ2: To what extent does designs that are contextually congruent with (1) the physical context and (2) the social context, influence brand attitude, purchase intentions and WOM of sportswear?

Moreover, a factor that has proven to have influence on product design choices of consumers is personal characteristics (Bloch, 1995). Bloch (1995) reminds us how consumers are different. The form or the design of a product can influence our cognitive and affective responses to the product, and through that, our behavior towards the product. According to Bloch (1995), people even differ regarding taste and preferences within their own culture or social settings, which could be explained by factors such as design acumen, past experiences or simply our personality (Bloch, 1995).

Furthermore, the centrality of visual product aesthetics (CVPA) varies across individuals and supply a useful base for targeting and segmentation (Bloch, Brunel & Arnold, 2003). According to Bloch et al. (2003) consumers with high CVPA consider aesthetics to be important for a wider range of product categories than consumers who scores low on visual centrality of aesthetics.

Thus, it will be very important for marketers of sportswear brands to understand what type of individuals they are dealing with and furthermore, try to understand the tastes and preferences of the customers in their target market. According to Bloch (1995), the latter is important in order to develop designs and forms that lead to product beliefs that we want, categorization of the product in line with our goals, and positive affective responses.

Based on the latter, we have decided to extend the original model by Homburg et al. (2015) even further by applying a third category of drivers which is based on the centrality of visual

product aesthetics and how it differs among consumers. Hence, the third and last research question will be:

RQ3: To what extent does centrality of visual product aesthetics influence the brand attitude, purchase intentions and WOM of sportswear?

1.4 Contributions

1.4.1 Theoretical Contribution

Despite the centrality of product design to marketing practice and society as a whole, previous research of design issues are limited (Bloch, 1995; Creusen & Schoormans, 2005; Homburg et al., 2015; Luchs & Swan, 2011; Noble & Kumar, 2010). The overview of previous research on product design in Appendix A shows how our thesis addresses these research gaps in the marketing and product design literature. More specifically, we contribute to this literature in the following ways:

First, this thesis contributes to this research by adding two additional categories of drivers to the perspective proposed by Homburg et al. (2015). We included contextual congruent design as a category of drivers, to ascertain whether the context in which the products is used, either physical or social, affects the brand attitude, purchase intentions and/or WOM of the customers, beyond the three design dimensions. Even though there exist previous research discussing the relevance of contextually congruent design, studies on its influence on consumer behavior are limited. Furthermore, especially the empirical research on contextually congruent design is scarce. Moreover, we also include centrality of visual products aesthetic as a category of driver. Bloch et al. (2003) has revealed that centrality of visual product aesthetics (CVPA) influence consumers' product evaluation and behavior. However, the level of CVPA differs among customers and these consumer differences have not been illuminated sufficiently in past research. Hence, Bloch et al. (2003) suggest more research on this topic to bring more attention to individual differences in reactions to design.

Further, this study intends to provide more empirical research on the influences of a products aesthetic, functional and symbolic design on key outcomes of consumer behavior. Existing research on influences of product design on consumer behavior mostly concerns durable goods (Candi et al., 2017; Creusen & Schoormans, 2005; Homburg et al., 2015; Noble &

Kumar, 2010). Hence, this study extends this research by looking into a non-durable good, sportswear. Webster's new world college dictionary defines non-durable goods as "goods that remain usable for, or must be replaced within, a relatively short period of time, as food, apparel, or fabrics" (Nondurable goods, 2014). In a survey provided in the US by Statista, 22.8 % of the respondents said that they purchase sports apparel and equipment once or more every month (Statista, 2018). Thus, sportswear can be considered as a non-durable good. By extending the empirical research proposed by Homburg et al. (2015) and Bloch et al. (2003), our study offers a conceptual framework that provides deeper insight into the effects of various design elements on consumer's intention to purchase products, WOM communication and brand attitude.

1.4.2 Managerial Contribution

In addition to being theoretically relevant, our study also has meaningful implications for managers, product designers and new product development teams who are interested in improving their sales and the quality of their products. The study provides managers and product designers with a better understanding of whether it is important that the designs of the products fit the social or physical context. It further, provides product designer with insightful information on which design dimensions to focus on when designing and producing sportswear.

Product design can be used to create sustainable competitive advantage (Bloch, 1995; Creusen & Schoormans, 2005; Homburg et al., 2015; Noble & Kumar, 2010). In today's competitive marketplace product design has an extensive effect on the desirability of a product. This directly drives the satisfaction consumers derive from its use (Noble & Kumar, 2010). Hence, failure to understand these factors and design products that deliver accordingly may lead to loss of market shares to competitors. This may in turn result in a rise of new competitors in the market who provides a better product design. In other words, product design is an important driver of the company's success (Hertenstein et al., 2005; Homburg et al., 2015). The conceptual framework provided in this thesis can be used by managers to get a better understanding of the customer group, which is important for managers in the industry in order to develop a product that fulfills customer's needs and expectations.

1.5 Assumptions

In this thesis we have only studied the relationship between the categories of drives and central outcomes of consumer behavior on training jackets, and not on any other kind of sportswear. However, we assume that the same results would apply for other types of sportswear apparel such as shoes, tights or T-shirts.

Furthermore, in the product development literature, the word “product design” is often used in a manner similar to product development. Krishnan and Ulrich (2001) defines product development as “the transformation of a market opportunity and a set of assumptions about product technology into a product available for sale” (p. 1). However, in this thesis, the term “product design” will be used in a narrower way, where the meaning of design is focused on the appearance, the form and/or visual aesthetics of a product This also include the user interface of the product such as, functional or ergonomic solutions and symbolism (Creusen & Schoormans, 2005). It is also important to distinguish between product design and the aesthetics properties of a product. Aesthetic properties are related to the compositional characteristics of a design (Kumar & Garg, 2010). While product design in this thesis is related to the aesthetic, functional and symbolic dimension of a product.

1.6 Thesis Outline

Chapter 2 offers a definition of sportswear as it is used in this thesis, followed by a brief presentation of the history and market development of sportswear. Chapter 3 contains the research model and presents relevant theoretical perspectives regarding the research topic. The chapter also outlines the hypotheses for the potential influences of the three dimensions of product design, contextually congruent design and CVPA on brand attitude, purchase intention and WOM. In chapter 4, an overview of the method applied in the empirical study is presented, including the research design, procedures and descriptions, and validation of measures. Further, chapter 5 reports the analysis and results of the empirical study. Finally, chapter 6 provides managerial and theoretical implications, evaluates the limitations of the study and offers suggestions for potential future research.

2. Sportswear

2.1 Definition of Sportswear

The Oxford dictionary defines sportswear as «clothes worn for sports or for casual outdoor use» (Sportswear, n.d.). Sportswear also includes footwear, and typical sport-specific garments include trainers, T-shirts, shorts, jackets, tracksuits, pants and tights. Sportswear can be worn in different settings, and is commonly used for sports, physical exercise or for comfort or practical reasons. However, at times, sportswear is also used as casual clothing (Sportswear, 2018)

In today's clothing market it no longer exists a clear line between sportswear and casual daywear, thus it can be somewhat difficult to come up with a universal definition of sportswear. Furthermore, the “trend” referred to as activewear do not make it any easier to clarify this term. However, we need to have a clear definition of what we in this paper consider as sportswear, and to do that we have to make some assumptions.

First of all, we do not consider any type of special sports gear, such as a baseball helmet, boxing gloves or shin guards, as sportswear. Furthermore, due to today's fashion industry a lot of different clothing is named activewear. It exists several types of garments that only have some kind of sporty appearance without actually being sportswear. By this we mean the type of garments that lack a type of function, such as breathing or durable material, that would make them fall into the category of sportswear.

Moreover, the terms sportswear and activewear has a somewhat different interpretation on different continents. In Asia and Europe, the term “activewear” is used as a fashion term and refers to casual daywear, while the term “sportswear” refers to apparel for the purpose of being active. However, in the US the interpretations of the terms are used reverse with “activewear” as a term for sports apparel and “sportswear” as a term for casual daywear (O’Sullivan, Hanlon, Spaaij & Westerbeek, 2017).

In this paper, we will use sportswear as our main term. Even though some would refer to the clothing as activewear, the clothing we refer to as sportswear should have some type of characteristics such as breathable and functional material. This means that the clothes we define as sportswear in this thesis should be suitable for physical exercise such as running,

going to the gym or hiking. The clothes have to be both comfortable and suitable for such purposes.

2.2 History and Background

Today the term "sportswear" describes a broad range of fashion-oriented comfortable garments made based on clothing developed for participation in sports. While "active sportswear" is the term used to cover the clothing worn specifically for sport and exercise activities. In recent years sportswear has generally been accepted as the most American of all categories of dress (Warner, 2006). Warner (2006) states how sportswear, from the second half of the twentieth century, has become the clothing of the world.

The origins of sportswear are complex but has most likely arisen from the pervasive social change and cultural developments in the mid-nineteenth century. Clothing was generally modified fashion wear, but distinctions between the country clothing and clothing in the cities appeared as early as the eighteenth century. With an ever-increasing urbanization of the population, reformers realized that the working classes had no real outlets other than drinking for what little leisure time they had. Participation in sports or as a spectator helped fill that gap. Moreover, European immigrants brought a variety of outdoor sports for men over to the United States, and also an accompanying culture of health and exercise that they nurtured in their private clubs. Clothing for these types of activities was more relaxed than the street clothes of the time and often consisted of a combination of shirt and trouser (Warner, 2006).

In the modern Olympic Games, counted from the year of 1896, it was introduced a new generation of active sportswear. Men appeared in very brief clothing to compete in track and field and swimming events: singlets, with above-the-knee shorts, and sometimes silk-skin-baring one-piece suits for swim competition. These items introduced a new style of sportswear (Warner, 2006).

Furthermore, as women started enjoying leisure activities and got increasingly fast-paced lives, American designers developed sportswear to meet their needs. This type of demand has continued well into the twenty-first century, with American sportswear becoming a global phenomenon (Lockwood, 2012).

From the beginning of the twentieth century sportswear was comprised of coordinated separates that could be easily mixed and matched, such as blouses and shirts worn with skirts or shorts. Furthermore, in the mid-twentieth century, the state of California became well known for its comfortable, outdoor lifestyle which required a more relaxed, laid-back wardrobe. As women became active participants in sports such as golf, tennis and swimming, a casual sportswear wardrobe became a necessity. Sportswear was designed in comfortable fabrics that were easy to care for (Lockwood, 2012).

Fabrics have played an important role in the development of active sportswear. From the introduction of Latex in the 1930s to the spandex of the twenty-first century, clothing for active sports has reflected the attention to sleek bodies, to speed. The concept proved irresistible for men and women in all active sports: new stretch textiles produced ski pants in the 1930s, bicycle shorts in the 1970s, all-in-one cat suits for skiing, sledding, sailing, speed skating, and even running in the 1980s and 1990s (Warner, 2006).

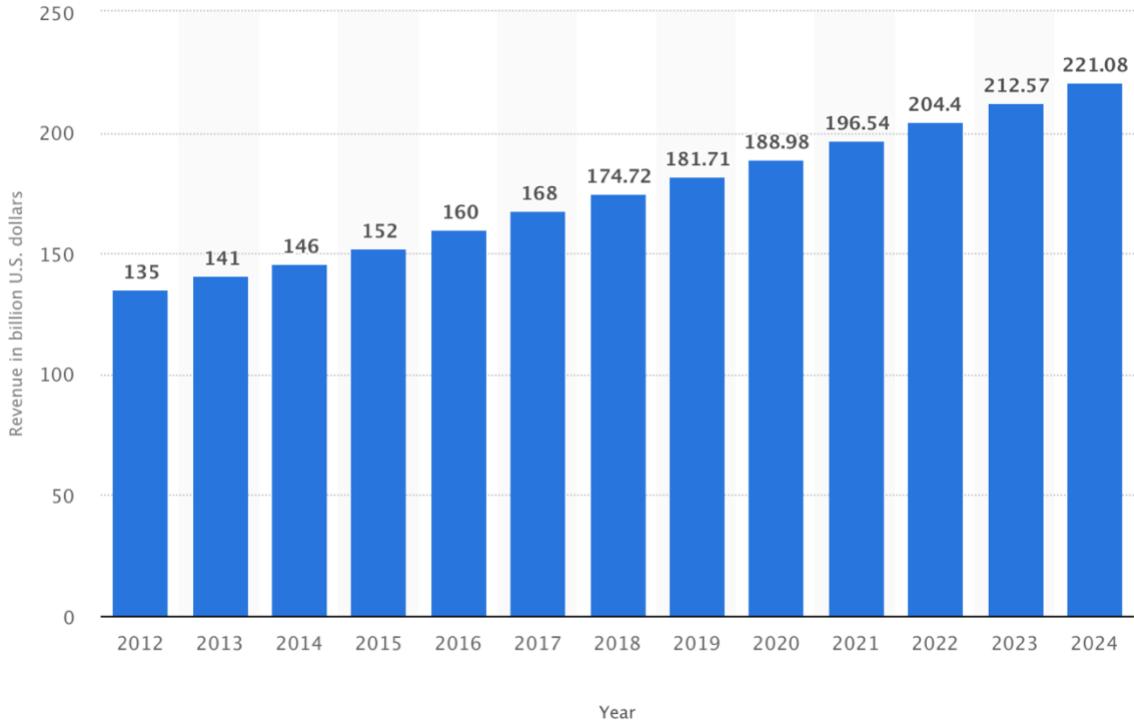
In this manner the new type of active suits, shorts, and tops found their way into active sportswear and onto athletic bodies everywhere. This further resulted in that the non-athlete became fascinated by the look, pressing fashion-wear manufacturers to adopt the tight-fitting yet comfortable clothing that sportswear has introduced (Lockwood, 2012; Warner, 2006).

2.3 Trends in the Market Development of Sportswear

The sportswear industry is a growing industry, with numerous competing companies. Several industry reports show a growth of sportswear sales in recent years, proposing that it is a segment of attention in the apparel market. In 2016, sportswear was valued at US\$78 billion in terms of market size. A research report published by Global Industry Analyst, Inc., predicts that the global market for Sports and Fitness Clothing reach US\$231.7 billion in revenue by 2024 if it continues on its rising trend (Business Insider, 2017). According to the NPD Group (2014), the growth in sportswear has been affected by a shift from sportswear being worn for athletic exercise and sport reasons to it being worn for casual everyday use at schools and at the workplace (O'Sullivan, Hanlon, Spaaij & Westerbeek, 2017). Further, the growth may also be explained by the growing proportion of the population living healthier lifestyles and the increasing participation in sports and fitness activities. Research moreover suggest that technological developments to improve comfort and performance also have contributed to the

growth in sales of sportswear (Business Insider, 2017). Table 1 shows an overview of the total revenue of the global sports apparel market from 2012 to 2024, and as we can see there is a huge predicted growth in the market.

Table 1: Total Revenue in the Global Sports Apparel Market from 2012-2024



Reference Table 1: Statista. (2018). Retrieved February 10, 2018 from <https://www.statista.com/statistics/254489/total-revenue-of-the-global-sports-apparel-market/>

There is a diminishing line between sportswear and casual everyday wear, which have resulted in a substantial number of luxury high-end brands now developing and producing sportswear (O’Sullivan et al., 2017). As a result, sportswear is turning into a popular style statement and fashion trend (Business Insider, 2017). In today’s increasingly fitness and fashion-conscious world, some people are willing to pay as much for a new piece of sportswear as they do for a new formal dress (Balfour, 2015). Especially among the younger generation, who tend to define the future fashion trends, sport-inspired clothing is a common part of the everyday wardrobe (Bramel, 2005). Sportswear has due to its functionality the purpose of absorbing sweat and aid performance, yet at the same time it is a tool to express self-identity which is a function of fashion (O’Sullivan et al., 2017).

The growth of sales and value in the sportswear industry makes it a profitable and highly competitive market, with numerous providers. Based on the latter, providers of sportswear need to position their products accurately to survive the competition and gain market share from other providers of sportswear. With the increasing demand for new and innovative products, your business will be more successful if you are able to define what sets you apart (Walker, 2014). One approach for differentiation is to provide a unique product design (Homburg et al., 2015). Furthermore, it is important for marketers to identify what motives that influence the behavior of their target market (Quester et al., 2014 as cited in O'Sullivan et al., 2017). Product design can influence consumer's attitudes, purchase intentions and word of mouth toward a product (Homburg et al., 2015;). It can also affect customer's responses (Bloch, 1995; Noble & Kumar, 2010). Hence, product design is a crucial factor for a products success. This thesis seeks to expand knowledge regarding factors that are likely to influence brand attitude, purchase intention and WOM of sportswear. Thus, the rest of this thesis develops a research model to study influences of product design on central outcomes of consumer behavior of sportswear.

3. Theoretical Perspectives, Research Model and Hypotheses

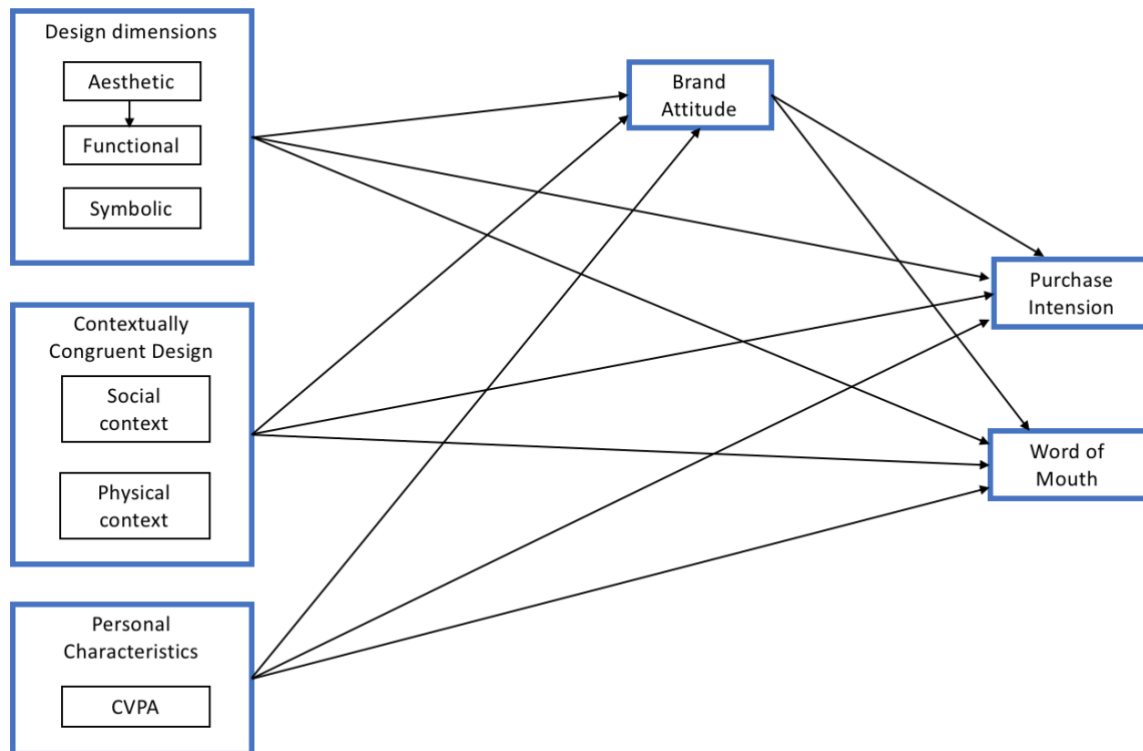
Marketing and new product development literature are limited when it comes to research on product design (Bloch, 1995; Homburg et al., 2015; Noble & Kumar, 2010) and a widely accepted definition of product design and its dimensions are lacking (Homburg et al., 2015). Homburg et al. (2015) suggest that product design should be viewed as a multidimensional concept consisting of the aesthetic, functional and symbolic dimensions. Furthermore, various types of congruence may influence consumers' evaluations of products (Fleck & Quester, 2007). Bloch (1995) notes the relevance of situational factors when evaluating design. He further argues how the visual appearance or design of a products is an important factor of the consumers response. Moreover, research by Bloch et al. (2003) illuminates important differences between consumers with low and high CVPA in evaluations of product design.

In this chapter we begin by presenting the research model. Then we discuss the different variables in the research model, elaborating on the mechanisms for the influences of product design, which is based on the research questions proposed in chapter 1. This chapter of the thesis also propose hypotheses on the relationships in the research model. There are raised 21 hypotheses to study the relationship between the three dimensions of product design, two dimension of contextually congruent design and CVPA on central outcomes of consumer behavior.

3.1 Research Model

In this thesis, we extend the product design scale provided by Homburg et al. (2015) to measure product design along the dimensions of aesthetics, functionality, and symbolism. In their research they investigated the impact of these design dimensions on brand attitude, purchase intention, word of mouth and willingness to pay (Homburg et al., 2015). In this thesis, we propose a model in which product design, contextually congruent design and CVPA influence customer purchase intention and word of mouth communication, with brand attitude as a mediating variable. This research model is illustrated in Figure 1.

Figure 1: Research Model



3.2 Theory and Hypotheses

In this section we are going to present the relevant theories that forms the basis of our proposed research model.

3.2.1 Purchase Intention

3.2.1.1 Definition

Purchase intention is defined by Wang and Tsai (2014) as “the likelihood that a customer will buy a particular product” (p. 29). It is a widely used variable in consumer research and design researchers regard it as a key outcome of product design (Chang & Wildt, 1994; Homburg et al., 2015). If there exists a willingness to purchase a product there is a probability that there will be a purchase. However, it does not mean that there with certainty will be a purchase. In general, the greater the intention to engage in behavior is, the more likely it is that the performance actually happens (Ajzen, 1991). The research literature, suggests that there is a link between product attributes and purchase intention (Chang & Wildt, 1994). Where these intrinsic attributes are related to the physical aspects of a product, for instance color, form and appearance and thus, its design (Espeiel, Fandos & Flavián, 2007).

3.2.1.2 Effects of Purchase Intention

It is important for marketers to understand the effects of purchase intentions due to how it is considered an important indicator of actual purchase. The action to make a purchase can also be considered as a behavior. Fishbein and Ajzen (1975) define behavioral intention as “a person’s subjective probability that he will perform some behavior” (p.12). Trying to predict behavioral intentions is much easier than trying to predict actual behavior due to how situational factors could cause a consumer not to engage in an intended behavior (Hoyer et al., 2015). For example, a student may intend to buy a car, but may not do so due to lack of money.

Previous research has suggested that consumers who report intentions to purchase a product possess a greater probability of actual purchase than consumers who report that they have no intentions of buying (Brown, Pope & Voges, 2001). Although it has been established that intention to purchase does not necessarily equal actual purchase, it has been shown that measures of purchase intentions are useful in predicting purchase behavior (Brown et al., 2001; Jamieson & Bass, 1989; Stapel, 1971).

Purchase intentions are shaped under the assumption of a pending transaction and, thus, often considered an important indicator of actual purchase. Moreover, product design can drive consumers behavioral responses, which comprises a range of possible outcomes, including purchase intentions and other post-purchase behavior (Candi et al., 2017). Several studies have been focusing on consumer characteristics as a factor influencing purchase intention (Kwon, Lee & Jin Kwon, 2008; Martinez & Montaner, 2008).

Purchase intention is therefore considered a suitable dependent variable to measure the outcome of product design, contextually congruent design and CVPA in our research model. Purchase intentions is an easily predictable variable and does not require previous experience with the potential products. Moreover, purchase intention is considered a key outcome of product design and is in compliance with other product design research (Chang & Wildt, 1994; Herbst, Finkel, Allan, & Fitzsimons, 2012; Homburg et al., 2015; Luchs & Swan, 2011). However, trying to predict behavioral intentions from attitudes is a lot easier than trying to predict actual behaviors. This is due to how situational factors can cause a consumer not to engage in an intended behavior. For instance, one might intend to buy a car, but simply

does not have the money to do so (Hoyer et al., 2015). Thus, purchase intention is chosen as a dependent variable in our research model.

3.2.2 Word of Mouth

3.2.2.1 Definition

In marketing and product design research word of mouth (WOM) is a common variable (Homburg et al., 2015). WOM is defined by Anderson (1998) as “informal communications between private parties concerning evaluations of goods and services to other consumers” (p. 6). Marketing communication often involve face-to-face communication and WOM is especially central, due to how consumers often rely on assistance from others to make purchases (Cheema & Kaikati, 2010).

Furthermore, WOM can consist of both online and offline communication. Offline WOM communication may include recommendations or information about products from friends, family, neighbors and even strangers. While online WOM communication consists of everything from online forums, websites, review sites and e-mails to social media, such as blogs, Instagram, YouTube and Facebook (Hoyer et al., 2015). In general, offline communication often is one-to-one and carries non-verbal clues. Online communication on the other hand is usually written and often one-to-many, that is, read by a great number of people (Lovett, Peres & Shachar, 2013).

3.2.2.2 Effects of WOM

WOM communication can be either positive, neutral or negative. Positive WOM can include relating pleasant or novel experiences or it might be recommendations to others. Negative WOM include behavior like relating unpleasant experiences, rumors and private complaints (Anderson, 1998). Consequently, WOM can have both positive and negative outcomes.

According to Hoyer et al. (2015) WOM can have substantial effect on consumers product perceptions and the marketplace performance of an offering. Several studies have shown that judgment of products often is strongly influenced by WOM (Herr, Kardes & Kim, 1991). Marketers want brand and product information to “go viral” due to the opportunity to influence a lot of people in a short period (Hoyer et al., 2015). One study found that more than forty percent of U.S. consumers seek advice from family and friends when selecting a doctor, lawyer or an auto mechanic. The study also found that WOM is crucial to restaurants,

entertainment, banking and personal services (Walker, 1995). Furthermore, in industries such as entertainment, success closely relies on favorable WOM. In general, positive WOM often results in higher sales of a product and services (Hoyer et al., 2015). Nevertheless, interestingly Cheema and Kaikati (2010) found that consumers with a high need for uniqueness were less willing to provide positive WOM for products they owned that were publicly consumed. However, high need for uniqueness does not decrease willingness to provide WOM for products that are privately consumed.

On the other hand, even though marketers tend to examine the WOM of neutral or positive nature, negative WOM is equally important due to its possible impacts on adoption and purchase behavior (Lovett et al., 2013). Negative information is often communicated to more people and it tends to have greater impact, than positive information (Basuroy, Chatterjee & Ravid, 2003; Hoyer et al., 2015). Therefore, it is important for companies to try to reduce and prevent negative WOM, whether online or offline, to prevent it from spreading further and reduce the negative impact (Hoyer et al., 2015).

WOM is one of the cornerstones of marketing (Lovett et al., 2013) and is a customary variable in product design and marketing research (Anderson, 1998; Cheema & Kaikati, 2010; Herr et al., 1991; Homburg et al., 2015; Lovett et al., 2013). Consumers often rely on advice from others in making purchase decisions (Cheema & Kaikati, 2010) and WOM may have significant effect on the marketplace success of an offering (Hoyer et al., 2015). By taking all of the above mentioned into consideration, we have chosen WOM as an appropriate outcome of product design in our research model. We further selected this as a variable due to how there already exists a scale developed by Homburg et al. (2015) to measure product design on this outcome. Consumers can talk about a product's design merely on basis of its visual assessment, such as seeing it in an advertisement, webpage or a shop window. Since the previously mentioned definitions of WOM only refer to communication and not recommendations, which require product expertise, WOM does not require experience with using the product, which is a requirement for the product design scale (Homburg et al., 2015).

3.2.3 Mechanisms Influencing Purchase Intention and WOM

The customer's interpretation of design is mainly based on their interaction with the product (Norman, 1988). The customer is involved in both the perception of products and the

following response (Crilly et al., 2004). Perceptions of physical attractiveness influence consumer responses (Giese, Malkewitz, Orth & Henderson, 2014). According to Noble and Kumar (2008), it seems apparent that product design can elicit different consumer decision processes and outcomes. To understand the consumers perception of product design and how it affects central outcomes of consumer behavior, such as purchase intention, it is useful to understand the different mechanisms which influence these behaviors. The traditional view of consumer behavior presents response to behavior as consisting of cognitive and affective responses, which are followed by behavior (Bloch 1995; Crilly et al., 2004; O'Shaughnessy, 1992). However, there are also other mechanisms which can be considered to influence behavioral responses. In this paper, we consider the multiattribute model theory of reasoned action, consumer responses and perceived value as the main mechanisms for influencing purchase intentions and WOM. In the following sections of this chapter, we will explain these three mechanisms in more detail.

3.2.3.1 The Multiattribute Model TRA

A person's decision to engage in a particular behavior is based on her/his expectations (beliefs) and evaluations (Fishbein & Ajzen, 1975). The most well-known expectancy value theory is the theory of reasoned action (TRA). The TRA is a multiattribute model that provides an understanding of how individuals will behave based on their attitudes and behavioral intentions. It was originally developed in 1967 by Martin Fishbein and was developed further by Fishbein and Ajzen in 1975. The TRA intends to predict behavior in situations where the consumer is in control and is thoughtful about his own behavior (Fishbein & Ajzen, 1975). Furthermore, the theory helps us to provide an understanding of the factors that drives the behavioral intention of consumers and that the intention for a specific behavior can predict, explain or influence actual use (Hoyer et al., 2015). The most important determinant of consumers actual behavior is the intention to behave. Behavioral intention is as mentioned before defined as "the strength of one's intention to perform a specific behavior" (Fishbein & Ajzen, 1975, p. 288).

People orient themselves in the world according to their expectations and evaluations (Fishbein & Ajzen, 1975). The TRA enlighten how attitudes are seen as a function of (1) expectancy (or belief), which is the perceived likelihood that a product/service possesses a particular attribute to satisfy needs, and (2) evaluation which is the degree of affect, positive

or negative, toward an attribute (Fishbein & Ajzen, 1975; Keller, 1993). However, the consumer attitude towards these attributes will differ depending of the specific situation, purchase context and purchase goals that the consumer is involved in (Day, Shocker & Srivastava, 1979). According to Sheppard, Hartwick and Warshaw (1988), the TRA can be used to predict different behaviors. The TRA is one of the most commonly used and influential theories of human behavior (Venkatesh, Morris, Davis & Davis, 2003). The TRA propose that attitudes towards behavior and subjective norms will determine intention to perform a certain behavior.

Attitudes Towards Behavior

Attitudes towards behavior is referred to as “an individual’s positive or negative feelings about performing the target behavior” (Fishbein & Ajzen, 1975, p. 216). In other words, if a customer believes that the positive consequences of performing a behavior exceeds the negative ones, she or he is likely to form a positive attitude toward a certain behavior. Ajzen (1991) argues that a favorable attitude will strengthen the behavioral intention and hence strengthen the likelihood that the behavior actually will be performed.

In the TRA, attitudes are viewed to be formed by a person’s beliefs regarding the consequences of engaging in the behavior and the person’s evaluation of these consequences. Furthermore, according to Hoyer et al. (2015), attitudes are important due to how they guide our thoughts (the cognitive function), influence our feelings (the affective function) and how they affect our behavior (the connative function).

Subjective Norm

Subjective norm is defined by Fishbein and Ajzen (1975) as “the person’s perception that most people who are important to him think he should or should not perform the behavior in question” (p. 302). Subjective norms take into account that an individual is exposed to social influences. In other words, our behavior is influenced by other opinions about a particular behavior. Thus, the intention to behave or to purchase a product is not only influenced by personal attitudes towards the behavior but is also influenced by others (Venkatesh & Davis, 2000).

Subjective norms are further determined by a person's normative beliefs and a person's motivation to comply. *Normative beliefs* refers to "what the person thinks someone else wants her to do" (Hoyer et al., 2015, p. 133). The normative beliefs can either be strengthened or weakened by a person's *motivation to comply* with others (Fishbein & Ajzen, 1980). According to Ajzen (1991) the stronger social pressure is, the stronger the subjective norm will be in influencing the behavioral intention. In the TRA, attitudes and subjective norms are considered as direct antecedents of intention to behave, while the influence of beliefs on intention are presumed to only be mediated by attitude (Fishbein & Ajzen, 1975).

3.2.3.2 Consumer Responses

When one has a fully developed product form, it may elucidate different types of psychological responses from potential consumers (Bloch, 1995). These psychological responses include both cognitive and affective components (Bitner, 1992). Bloch (1995) emphasizes affective and cognitive responses as the main influence for behavioral responses based on design. According to Bitner (1992) cognitive and affective responses interact and can further occur simultaneously. Norman (2002) as cited in Crilly et al. (2004) argues how both cognition and affect are information processing systems, where the cognitive system makes sense of the world and the affective system is judgmental. Furthermore, the two systems influence each other with cognition leading to affect, and affect influencing cognition (Crilly et al., 2004).

Cognitive Response

Cognitive responses refer to the assessments that the consumers make about the products based on the perceptions by their senses (Crilly et al., 2004). According to Bloch (1995) the product form may create or influence a consumer's beliefs concerning characteristics such as durability, dollar value, technical sophistication, ease of use, sex role appropriateness and prestige. Thus, designers choose certain types of form elements to proactively encourage the creation of consumers desirable beliefs (Bloch, 1995). In his article, Bloch (1995) use the example of leather upholstery in luxury cars. Today this type of upholstery is being fitted with generous wrinkles to engender perceptions of softness, genuineness, and comfort. Having this said, consumer beliefs about a product resulting from the design elements also create unfavorable reactions. If you have a very distinct and particular design which oozes of luxury,

consumer might expect it to be expensive and will based on this not include this product in their evoked set (Bloch, 1995).

Moreover, in the article by Crilly et al. (2004) they suggest how one can use the following three categories to describe cognitive response to product appearance. First, we have the aesthetic impression which may be defined as “the sensation that results from the perception of attractiveness (or unattractiveness) in products” (Crilly et al., 2004, p. 6). The second, is semantic interpretation which may be defined as “what a product is seen to say about its function, mode-of-use and qualities” (Crilly et al., 2004, p. 6). The last and third, is what Crilly et al. (2004) calls symbolic association which is defined as “the perception of what a product says about its owner or user: the personal and social significance attached to the design” (Crilly et al., 2004, p. 6). However, Crilly et al. (2004) further states how even though it is convenient to do so, it is not entirely accurate to describe products as being aesthetic, having semantic attributes or possessing qualities. Instead, these categories are all aspects of cognition driven by both the perception of tangible stimuli and pre-existing knowledge.

When it comes to the cognitive responses of product design the literature still debates at some levels whether these product-related-beliefs derive from a holistic visual point of view regarding the product form or a more linear processing of one design element at the time (Bloch, 1995). By this we mean, how a person views a particular product. The Gestalt theory argues how the whole is more than the sum of its parts (Homburg et al., 2015). Thus, most consumers tend to think of a bicycle as a whole entity (holistic) rather than separate components such as its tires, steer and seat (atomically or linear processing). According to Bloch (1995) one can assume that the latter two perspectives occur when a consumer makes up her mind about a product. Thus, the product may first be perceived as a whole, but if the form warrants further processing, then individual elements may become salient.

Furthermore, the concept of product categorization is another potentially important type of cognitive response to a product form (Bloch, 1995). Consumers often have the need to place different products within an existing category. One example could be how we see a toaster. We will firstly categorize it as household equipment, and further as kitchen equipment. Then, if this toaster has a polished and particular design, and thus looks expensive, we further categorize it as high end/luxury kitchen equipment. Based on the latter, and according to

Bloch (1995) categorization is based on the perceived similarity between given products and exemplars of various product categories and sub-categories.

Products that have a highly unusual or novel form can make the categorization task difficult and frustrating for both the seller and the consumer (Bloch, 1995). The literature regarding categorization suggests that consumers normally prefer products that have moderate incongruity and distinctiveness with respect of existing products. Based on this fact the latter two factors are high enough to warrant further processing, yet the product can still be categorized with relative success (Bloch, 1995). Taking this into consideration, marketers should adopt a proactive approach, when it comes to how consumers categorize new products, rather than leaving the categorization to chance. The latter is in line with Bloch (1995) who argue how research with target consumers using pre-production prototypes can lead to that the intended categorization is occurring successfully.

Affective Response

As mentioned above, research has well established that products also elicit affective responses (Desmet, 2003). *Affective responses* occur when consumers are emotionally involved and often involves the generation of images or feelings (Hoyer et al., 2015). The affective responses can be divided into positive and negative responses. Bloch (1995) argues how product form perceptions in some cases can lead to a moderately positive response such as simply liking a product, or it can evoke strong aesthetics responses similar to those for works of art. Holbrook and Zirlin (1985) define *aesthetic response* as a “deeply felt experience that is enjoyed purely for its own sake without regard for other more practical considerations” (p. 21). Thus, aesthetic responses derive from the design and sensory properties of the actual product form rather than its performance or functional attributes.

Desmet (2003) as cited in Crilly et al. (2004) proposes five categories for the emotional responses that products may elicit which are: instrumental (such as satisfaction or disappointment), aesthetic (such as attraction or disgusts), social (such as admiration or indignation), surprise (such as amazement) and interest (such as fascination or boredom). Each of these categories of emotion result from an appraisal of the product. Such aesthetic responses are normally formed on the basis of intrinsic elements of the stimulus, and they further encompass strong attention and involvement (Bloch, 1995). Bloch (1995) argues how it is possible to conclude that products can elicit at least a moderate level of aesthetic

responses in consumers which includes an engagement of attention and strong positive emotions. Regarding the visual perception, this appraisal is based on the three categories mentioned earlier which was, aesthetic impression, semantic interpretations and symbolic associations that comprise the cognitive responses (Crilly et al., 2004).

As mentioned in the previous paragraph, it also exists negative affective responses. Managers should therefore recognize the possibility of these negative reactions to product form perceptions as well. The negative responses work in the same way as the positive ones, thus one may not like a kitchen table due to its design or material (Bloch, 1995). The goal of product design is of course to elicit more positive than negative responses among consumers and then especially those who falls within the target market. The possibility that a consumer has both positive and negative responses to a product form is also present, and further that these affective responses may relate to the overall form or individual design elements. One can imagine how a consumer may like the appearance of a bicycle, except for the design of its pedals (Bloch, 1995). Consequently, it is particularly important to understand the link between emotional response and design due to the critical role that emotions often play in consumers decision making (Kumar & Garg 2010).

3.2.3.3 Perceived Value

Product design contributes to creation of value (Rindova & Petkova, 2007). *Value* is defined by Baldwin and Clark (2000) as “a measure of a product’s worth in a particular social context” (p. 96). According to Kumar and Noble (2016) product design can create not only “form” and “function” related value, but also a self-expressive dimension (social and altruistic value) that is communicated through the designs holistic properties. Rindova and Petkova (2007) argues that the functional, symbolic and aesthetics dimension of product design interact to affect perceptions. Product design generates aesthetic and symbolic properties by providing cues that evoke social, cultural and aesthetic meanings, as well as visceral emotional reactions to the product (Norman, 2004; Rindova & Petkova, 2007). The product design and underlying technological change interact and affect how consumers may conceptualize a product’s functions and respond to it emotionally. Thus, product design can be chosen strategically to influence consumer responses to products.

Furthermore, according to psychologists, evaluations of value are “complex assessments of fit” (Rindova & Petkova, 2007, p. 219). The fit between the configuration of a product’s attributes and the configuration of attributes is specified by the schemas used for its interpretation (Mandler (1982) referred to in Rindova & Petkova, 2007). This is an important view due to how it emphasizes that evaluation of new products depends on if and how it makes sense as a whole (Rindova & Petkova, 2007).

Prior literature has classified the value of product design as being two-fold as form (hedonic) and function (utilitarian) based (Chitturi, Raghunathan & Mahajan, 2008; Kumar & Noble, 2016). However, Kumar and Noble (2016) argues how this dichotomous classification of the value types appear somehow limited. Thus, in their article a third major self-expressive (symbolic) dimension also emerge, which includes two distinctive value sub-dimensions (Social and Altruistic). Together four core values of design emerge and form what Kumar and Noble (2016) call the term SAFE (Social, Altruistic, Functional and Esthetic).

Aesthetic Value

The esthetic or *aesthetic value* dimension of product design is defined as the “the consumers perceptions of attractiveness and pleasure derived from its appearance” (Kumar & Noble, 2016, p. 614). Norman (2004) states that the aesthetic properties of products are primarily hedonic in nature and its value discernment is often sensory, which he refers to as “visceral level” (Norman, 2004). Thus, consumers often assign value to the aesthetic properties of a products design that can be “visceral” and subconscious in nature (Kumar & Noble, 2016; Rindova & Petkova, 2007).

Functional Value

The *functional value* dimension is defined as “the way it helps meet the practical or utilitarian needs of the consumer” (Kumar & Noble, 2016, p. 615). Norman (2004) states that this type of value reflects the cognitive assessment of the design elements that serve a purpose and describes it as the behavioral level. Consequently, consumers often ascribe utilitarian value to the functional properties of design based on how the design communicates its quality and how effectively and efficiently it can do the task at hand.

Social Value

The research by Kumar and Noble (2016) found that product design also become a vehicle for self-expression and self-identity which they refer to as social or *symbolic value*. This is due to how it provides opportunities for visibility during the usage experience. *Symbolic value* in product design is defined as “the ability to help consumers increase their perceived status in the community and/or improve their self-esteem” (Kumar & Noble, 2016). Norman (2004) argues that gaining value by using product design as a mode of self-expression involves the personal and social significance attached to the design and is reflective in nature. In conclusion, consumers often “reflect” on the value of the design in making them look sophisticated in their peer groups and potential to increase self-esteem.

Altruistic Value

The final value dimension is what Kumar and Noble (2016) refers to as altruistic value. *Altruistic value* is defined by Kumar and Noble (2016) as “the consumer perception of how it enables them in helping other individuals and society at large” (p.616). A product can provide altruistic value by being seen as good, proper or morally right (Noble & Kumar, 2008). Accordingly, this value dimension is ascribed to a design when consumers “reflect” on how the design can help others and how they can use it to showcase their self-identity. Altruistic value differs from social value in that the consumer is primarily concerned with the benefits accrued by others more than they are concerned about the benefits for themselves (Kumar & Noble, 2016).

Given that product design is the most visible part of a product and the brand it represents, it often becomes a vehicle to communicate aesthetics, functionality and self-expression (Creusen & Schoormans, 2005). It is important to understand how firms can influence initial perceptions of value. This is due to how such perceptions determine subsequent behaviors toward the product such as purchasing and recommending it to others (Rindova & Petkova, 2007).

We have now discussed the three main mechanisms; TRA, consumer responses and perceived value that influences the relationship of the categories of drivers on purchase intentions and WOM. We are further in this chapter going to define and discuss the remaining concepts of our research model by applying the theory from the section of the three mechanisms. Finally,

in this chapter we will use these discussions to derive the hypotheses of the relationships that are predicted in the research model.

3.2.4 Brand Attitude

Design can be a relevant source of strong consumer-brand relationship (Mishra, 2016). Homburg et al. (2015) argues how they looked for an overall brand construct to analyze the role of the brand for the effects of product design in a more general way. Thus, they propose, which also literature suggest, brand attitude as a mediating variable in the model. The relevance for attitudes on behavioral intention makes it an important variable for studying outcomes of product design. Moreover, previous studies suggest a strong link between product design and brands (Homburg et al., 2015). Product design is considered a common output of all production processes within a company, hence, serving as the first interaction between a product or brand and the user (Mishra, 2016).

3.2.4.1 Definition

Brand attitude is defined by Schmitt (2012) as the “psychological tendencies to evaluate objects along a degree of favor or liking” (p. 7). It can be related to both product-related attributes and non-product-related attributes. Due to how brand attitudes form the basis for consumer behavior they are considered as very important (Keller, 1993). Although different models of brand attitudes have been suggested, the TRA model is the approach that is most widely accepted (Keller, 1993) and likely the most influential to marketing research (Bettman, 1986).

The TRA, as previously described, provides an overview of how, when and why attitudes predict consumer behavior and that these attitudes are a function of beliefs linking the attributes to other characteristics, and evaluations of those characteristics (Fishbein & Ajzen, 1975). As mentioned before attitudes are based on cognitions (thoughts) or beliefs. Hence, attitudes can be based on thoughts we have about information received from an external source or information we recall from memory. Another approach proposes that attitudes are formed based on emotions. We can have a favorable attitude toward a product or service, simply due to how it feels good or seems right. Thus, attitudes can be formed based on both cognitive responses and affective responses (Hoyer et al., 2015).

Furthermore, according to Lovett et al. (2013), consumers spread the word on brands for three fundamental reasons which are; social, emotional and functional. Regarding the social driver this is mainly to send signals to others as to one's expertise, uniqueness or social status. With the emotional driver the consumer wishes to share positive or negative feelings about brands in order to balance emotional arousal. Where the functional driver is used to provide and supply information (Lovett et al., 2013).

3.2.4.2 Hypotheses

Previous research indicate that purchase intention is strongly influenced by consumers attitude towards a brand (Abzari, Ghassemi & Vosta, 2014). According to Herbst et al., (2012) when customers trust and think about a brand in a favorable way, they increase their intention to purchase this brand. The multiattribute model TRA provides an overview of how attitudes influence behavioral intentions (Fishbein & Ajzen, 1975). Where behavioral intention is considered to be the most important determinant of actual behavior and is influenced by an individual's attitudes towards behavior and subjective norms (Hoyer et al., 2015). A positive attitude towards a product will strengthen the behavior and the probability that a consumer will perform a particular behavior (Ajzen, 1991). Furthermore, the opinion of others about a particular behavior likely to influence our behavioral responses. Findings by Homburg et al. (2015) suggest that brand attitude has positive influence on purchase intentions and WOM. According to Lovett et al. (2013) brands that are highly differentiated from others, will generate more WOM.

H1a: Brand attitude has a positive influence on purchase intentions

H1b: Brand attitude has a positive influence on word of mouth

3.2.5 Product Design

Luchs and Swan (2011) and Homburg et al. (2015) notes the absence of a widely accepted definition of product design. Until recent years product design has often been referred to as issues of “form” and “function” (Luchs & Swan, 2011; Kumar & Noble, 2016; Noble & Kumar, 2010). However, there are some proposed examples of general conceptualizations of product design in the literature. Bloch (1995) defined product design in terms of product form, where “a products form represents a number of elements chosen and blended into a whole by the design team to achieve a particular sensory effect” (p.17). Such elements can be

shape, scale, tempo, proportion, material and color (Bloch, 1995). Creusen and Schoormans (2005) argue that the appearance of a product has several roles. They identify the following six roles of product appearance: communication of aesthetics, symbolic, functional, and ergonomic product information, attention drawing and categorization. Furthermore, Homburg et al. (2015) proposes that design should be understood as a multidimensional concept. They suggest subsuming the ergonomic dimension under functionality, due to how the two categories are closely related. Hence, they propose a definition where product design is considered a three-dimensional concept including the aesthetic, functional, and symbolic dimension. However, and as mentioned earlier, Kumar and Garg (2010) argues how it is important to distinguish between product design and the aesthetics properties of a product.

In this thesis, we will use the most recent developed definition of product design proposed by Homburg et al. (2015) who refers to product design as “a set of constitutive elements of a product that consumers perceive and organize as a multidimensional construct comprising the three dimensions of aesthetics, functionality, and symbolism” (p. 44). That is, a product simultaneously claims all of these three dimensions to different extent (Homburg et al., 2015). These three dimensions of product design; aesthetics, functional and symbolism are expedient for understanding various influences of design on consumer behavior. Further on, we will explain the three dimensions of design in more detail.

3.2.5.1 Aesthetic

Definition

Aesthetic principles play a central role in determining the nature of customers initial reaction in their first encounter with a product (Kumar & Garg, 2010). In today's market companies hires designers relying on them to develop products that have appealing forms. However, the attempts to develop goods with a somehow attractive product form are nothing new. Nearly all civilizations have decorated objects that are functional like different types of weapons and clothing (Becker, 1978 as referred to in Bloch, 1995). Aesthetics design refers to the customers perception of a product's appearance and beauty and further triggers hedonic responses among consumers (Bloch, 1995). In the book “how designers think” by Lawson (1993) as referred to in Noble and Kumar (2010) visual product aesthetics are defined as characteristics that create a product’s appearance, including materials, proportion, color, ornamentation, shape, size, and reflectivity.

Background for Hypotheses on Influences of Aesthetics

In our modern society, the sensitivity of aesthetics is relevant to all products, regardless of their function (Holbrook 1980; Holbrook and Zirlin 1985). When given the choice between two products, equal in price and function, target consumers buy the one they consider to be more attractive (Kotler & Rath, 1984; Nussbaum 1988 as referred to in Bloch, 1995). The latter statement corresponds with the findings of Yamamoto and Lambert (1994) as referred to in Creusen and Schoormans (2005) who showed that even for industrial products, appearance has an influence on product preference. Creusen and Schoormans (2005) argue that many people just like to buy a product that looks aesthetically pleasing, and thus can product appearance provide value in itself. Furthermore, the *aesthetic value* of a product only pertains to the pleasure derived from seeing the product, and not by considering the utility of it (Holbrook, 1980).

In the article by Giese et al. (2014) they provide “the aesthetic middle principle” which contends that designs most effective in generating purchase intentions are not the most attractive and strongest, but rather designs tempered to be moderately attractive and very strong or very attractive and moderately strong. Moreover, and like other factors that influence purchase decisions, the influence of aesthetic middle designs does not depend on customer's design acumen and available research. Furthermore, research on aesthetic design maintain that stimuli with moderate aesthetics qualities elicit more favorable responses than stimuli that score lower or higher on a particular quality. Aesthetic middle designs are more effective in influencing purchase decisions of hedonic than for utilitarian products (Giese et al., 2014).

Aesthetic responses are primarily emotional or feeling based, *affective responses*, and as such, they are very personal (Bamossy et al., 1983 as referred to in Creusen and Schoormans, 2005). When the product alternatives are similar in both functioning and price, a typical consumer often prefer the one that appeals the most to them aesthetically. Furthermore, color is also viewed as a property influencing aesthetics judgement and that it will change according to the object to which it is applied (e.g., a car or a table), and with the style of the object (e.g., ‘Modern’ or ‘Georgian’) (Whitfield & Wiltshire, 1983 as referred to in Creusen & Schoormans, 2005)

According to Bloch (1995) prototypicality is another factor that is found to influence the

aesthetic responses of the consumer. Prototypicality is defined by Mugge and Schoormans (2012) as the “central representation of a specific category in people’s mind” (p. 1082). Hekkert, Snelders and van Wieringen (2003) argues how products with an optimal combination of prototypicality and novelty are preferred. Thus, will products that appears prototypical and novel participate to the creation of *aesthetic value* for consumers.

Hypotheses

Considering the importance of aesthetic design, companies are putting increasing weight on seeking the ideal product aesthetics (Liu, Li, Chen & Balachander, 2017). We expect products that are perceived as high in *aesthetic value* to have a positive effect on brand attitude. According to Giese et al. (2013) products with aesthetic middle designs are the most effective in generating purchase intentions. Moreover, consumers often seek advice from others to make purchase decisions (Cheema & Kaikati, 2010). Furthermore, the empirical research of Homburg et al. (2015) found that the aesthetic dimension of product design has a positive influence on brand attitude, purchase intention and WOM. Thus, we expect that the aesthetic dimension of product design may have a positive effect on brand attitude, purchase intention and WOM. Based on this line of reasoning we propose the following hypotheses:

H_{2a}: The aesthetic dimension of product design has a positive influence on brand attitude

H_{2b}: The aesthetic dimension of product design has a positive influence on purchase intentions

H_{2c}: The aesthetic dimension of product design has a positive influence on WOM

Bloch (1995) elaborate on the actual form of a product, and further how the different aesthetic characteristics may contribute to success of the product in question. According to Hoegg and Alba (2011) the performance expectations of a product created by consumers based on product aesthetics may be difficult to overcome. Hence, the aesthetic dimension of product design could conceivably have an effect on the functional dimension of product design. Further on, Hoegg and Alba (2011) argues how product form, the aesthetic characteristics, can influence consumers judgement of functional performance. Therefore, when the aesthetic characteristics together create a particular product form which suggest a particular level of functional performance, it can indeed alter consumer judgement, despite of more objective written information. Thus, we hypothesize the following:

H2d: The aesthetic dimension of product design has a positive influence on the functional design dimension

3.2.5.2 Functionality

Definition

Homburg et al. (2015) inspired by Bloch (2011) and Boztepe (2007) defines the functional dimension of design as “the consumers perceptions of a product’s ability to fulfill its purpose” (p. 44). The *functional value* of a product relates to the utilitarian function (Creusen & Schoormans, 2005). In other words, the functional dimension of design refers to the usefulness of a product and its ability to fulfill a targeted task.

Background for Hypotheses on Influences of Functionality

According to Crilly et al. (2004) functional performance influence both consumers *cognitive* and *affective responses*. The functional aspect should not be ignored due to the criticality to how consumers evaluate products (Hoegg & Alba, 2011). The design provides a strong utilitarian benefit if the product is reliable, safe, and convenient to use. Moreover, the utilitarian benefit also includes the quality of the products ergonomic characteristics and its economic efficiency (Bloch, 2011). Where the ergonomic value of a product concerns “the comprehensibility and usability of a product, the suitability to perform and correctly to communicate its utilitarian functions” (Creusen & Schoormans, 2005, p. 67). In general, consumers often tend to prefer products that are perceived as safe, reliable, and convenient to use.

Mishra (2016) argues how several studies subscribes to the view that functional design represents hidden capabilities of a product that are useful during a consumption occasion. Products are different, and thus, differ in the extent in which they are suited to manage their basic utilitarian function (Creusen & Schoormans, 2005). For example, a coffee machine might have the option of a milk-frother or a car might have a navigation system. The presence of such options affects the consumers *functional value* of the product. For some products, the functionality can be obvious from its appearance. However, in accordance with Homburg et al. (2015) we acknowledge that for other products it is only possible to evaluate the product properly after consumption or use. Still, in many situations, customers are able to judge the

functionality of a product from simply seeing it (Hoegg & Alba, 2011). This can be due to how the product might seem solid or high quality merely based on its appearance. The findings of Hoegg and Alba (2011) provides evidence that when a product's form suggests a particular level of functional performance, consumer naturally incorporate that information into judgment of feature performance even when conflicted with feature information from an objective source. Thus, it becomes clear that visual design often is a reliable source of *functional value*.

Hence, product appearance can be used as a tool in order to provide the consumers with a certain impression about the functionality of a product (Creusen & Schoormans, 2005). Furthermore, and as mentioned earlier, consumers will make inferences about functional performance based on product form, and these inferences can influence or even override consideration of more objective information, potentially resulting in non-optimal product evaluations (Hoegg & Alba, 2011). This is especially important for online stores, where consumers have to judge products merely on the basis of its visual appearance.

Hypotheses

Products with a functional design, that also provides a strong utilitarian benefit (*functional value*), has a positive influence on the consumers perception of the products. The results of the empirical research provided by Homburg et al. (2015) reveals a positive influence of functional design on brand attitude, purchase intention, and WOM. Moreover, the functional dimension of product design can be used as an indicator of functional performance (Hoegg & Alba, 2011) and hence can increase the probability of purchase. According to Noble and Kumar (2008) functional differentiation can lead to superior customer lifetime value and positive generation of WOM. Based on the latter we expect that the functional dimension of product design can have a positive effect on WOM. The functional dimension of product design can help customers overcome doubts and uncertainties about the quality of a product and in this way serve as a signal (Homburg et al., 2015). Finally, we also expect an indirect effect of functionality on WOM and purchase intention through brand attitude. Thus, we propose the following hypotheses:

H_{3a}: The functional dimension of product design has a positive influence on brand attitude

H_{3b}: The functional dimension of product design has a positive influence on purchase intentions

H_{3c}: The functional dimension of product design has a positive influence on WOM

3.2.5.3 Symbolism

Definition

The symbolic dimension of design is referred to as “the perceived message a product communicates regarding a consumer’s self-image to both the consumers and others on the basis of visual elements” (Homburg et al., 2015, p. 44). Products can carry and communicate a symbolic meaning (McCracken, 1986).

Background for Hypotheses on Influences of Symbolism

Verganti 2008 explains how symbolic design and functional design have the same level of importance due to how consumers in general has a strong desire for meaning. Indeed, may the symbolic design dimension be the basis for consumers to experience personal values and further derive sacred and transcendental meanings. Achievements, independence and self-control are related to symbolism due to how they are connected to one's sense of self. Moreover, the need for uniqueness is also symbolic because it affects purchase decisions about how we express our identity, hence *symbolic value* (Candi et al., 2017; Hoyer et al., 2015). This is also in line with Bloch (1995) who claims that due to how people classify them self and others by the kind of products they display and use, consumers with a high need for uniqueness often prefer novel and unusual products. The latter also reflect how consumers can respond to a product *cognitively* by using it to display individuality. This interdependence of *cognitive* and *affective* mechanisms is probably in play to explain how symbolic design influences attitude towards a product (Crilly et al., 2004). Furthermore, end users today demand more variety of designs to make them feel more unique (Magnusson & Pasche, 2013).

The product itself can also express *symbolic value* only on the basis of its appearance. A product can look cheerful, boring, friendly, childish, cheap, or expensive and the appearance of the product can thus communicate a message (Creusen & Schoormans, 2005). Moreover, Keller (1993) argues that design with more personality provide higher *symbolic* or self-expressive *value*. Several companies therefore use certain design elements consistently such

as color or a distinctive style for the products to express a message. Moreover, the appearance of a product may have a certain style that evoke associations to a time period or location (Creusen & Schoormans, 2005). Further on, people tend to think that particularly designs can not only increase their own *social value*, but also help other individuals with how they can use the designs to showcase their self-identity, hence *altruistic value*. In addition, the *subjective norm* also plays a great role when it comes to how consumers perceive symbolic design. This in turn will have an effect on individual's positive or negative feelings about performing a particular behavior, hence *attitude towards behavior*. The greater the social pressure is, the stronger will subjective norm be in influencing behavior (Ajzen, 1991).

In the literature there are some debate about whether the symbolic dimension of design is contained in the aesthetic experience (Creusen & Schoormans, 2005). However, the symbolic dimension is essential due to how aesthetics and functionality alone does not capture product design to the full extent (Homburg et al., 2015). According to Homburg et al. (2015) the aesthetic dimension and symbolic dimension can have opposite perceptions. In their study, Creusen and Schoormans (2005) show the latter with the following example; “someone who likes a colorful design may not buy it because it looks “too childish”” (p. 67).

Hypotheses

The symbolic dimension captures how design can communicate customer's self-identity (Hoyer et al., 2015). The overall findings of Homburg et al. (2015) shows how the symbolic dimension has the strongest effect on both purchase intention and WOM. The effect of the symbolic dimension was more than three times the effect of the functional dimension (Homburg et al., 2015). This is in line with the findings of Candi et al. (2017) who found positive direct effects of the symbolic dimension on behavioral responses. Homburg et al. (2015) argues how this effect might be due to consumer's strong will to express themselves with the help of products. Further, due to how *symbolic value* is driven by consumer's ability to use the products for self-expression, individual and group identity and sacred meanings its effects go beyond product involvement (Candi et al., 2017). The choice of a specific brand or product can reflect the kind of person someone is or wants to be, hence consumers use brands and products to express their desired self-image to themselves and others (Creusen & Schoormans, 2005). Moreover, customers use products as symbols to identify and differentiate themselves from the group they belong to, which may initiate intention to purchase (Ghorban, 2012). We therefore hypothesize the following:

H4a: The symbolic dimension of product design has a positive influence on brand attitude

H4b: The symbolic dimension of product design has a positive influence on purchase intentions

H4c: The symbolic dimension of product design has a positive influence on WOM

3.2.6 Contextually Congruent Design

“All social interactions are affected by physical container in which it occurs” (Bennett & Bennett, 1970, p.18). It is given that the human behavior is influenced by the physical context in which it occurs, but what is interesting is how psychologists largely ignored the effects of physical context in their attempts to predict and explain behavior until the 1960s. After this decade a large and steady body of literature within the field of environmental psychology has developed and addressed the relationships between human beings and their built environments (Bitner, 1992). Fleck and Quester (2007) note that a literature review on the topic of congruence remains, however, a challenge, not least because of the variety of terms used interchangeably to describe it. Authors have used several terms to refer to congruence and the word has been associated with a rather vague concept in the marketing literature. According to Fleck and Quester (2007) the terms “fit”, “typicality”, “similarity,” and “compatibility” have all been used to describe congruence. These expressions provide an indication of the definitions that are used to explain congruence.

Congruence has been discussed in several contexts such as brand extensions, sponsorship, celebrity endorsement, servicescapes and advertising. The term servicescapes evolves in the article by Bitner (1992). She defines the servicescapes as “the manmade, physical surroundings as opposed to the natural or social environment” (p. 58). The results from previous research indicates that congruence is a positive factor (Fleck & Quester, 2007). Fleck and Quester (2007) further argues that the core of the importance of congruence in marketing is how some things goes together while others clash. Marketing researchers have in the past examined how and why congruence can assist marketing strategy. Furthermore, and also according to Bitner (1992), yet, particularly in marketing, there is a surprising lack of empirical research or theoretical based frameworks addressing the role of physical surroundings in consumption settings.

3.2.6.1 Physical Context

Bitner (1992) refers to compatibility in natural settings as “how well a place blends in with its surroundings” (p. 63). The ability of the physical context to influence behaviors and to create an image is in particular important for service businesses such as hotels, restaurants, banks, retail stores and hospitals. Research on organizational behavior suggests that the physical context can influence employee satisfaction, productivity, and motivation. Hence, should the environment of the specific organizations support the needs and preferences of both service employees and customers simultaneously.

Thus, an example that is applicable in this thesis and which is in accordance with the latter, is how consumers that visit a fitness center, which has great design details and in general exudes a fresh atmosphere, will be interested in “to blend in with the surroundings”. These consumers would then want to buy fitness wear with great design details. Thus, one could imagine that in this context, to some extent, a consumer could actually be more interested in the product design, the *aesthetic value*, than the actual function of it, the *functional value*.

Furthermore, Bloch (1995) build on what is referred to as the “sequence effect”, which is one of the well know situational factors. A situational factor moderate both *psychological* (*cognitive* and *affective*) and behavioral responses to product form. The “sequence effect” explains how consumers choose not to buy a product they like due to how it fit poorly with previously acquired objects (Bloch, 1995). Hence, products are often purchased with the purpose to visually complement existing possessions (Crilly et al., 2004). An example of the latter could thus be how a consumer that already owns one pink tights with stripes would probably not buy a red t-shirt with a checkered pattern, but rather a T-shirt that have similar pattern and color as the already purchased tights. This aesthetic complementarity indicates how the sequence effect will moderate design preferences (Bloch 1995; Crilly et al., 2004). The latter is further an example of how a consumer also can form an *attitude towards a behavior*.

According to Bitner (1992) perceptions of the servicescapes lead to certain beliefs, emotions, and physiological sensations which in turn influences behaviors. The internal responses, which are both *cognitive* and *affective*, are clearly interdependent (Crilly et al., 2004). Bitner (1992) further argues how the environment can be viewed as a form of nonverbal communication called “object language”. For example, particular environmental cues such as

the type of office furniture and decor and the apparel worn by a lawyer may influence a potential client's beliefs about whether the lawyer is successful or not successful, expensive, and trustworthy or not trustworthy. In addition to influencing *cognitions*, the perceived servicescapes may also elicit *affective responses* that may influence the *attitude towards the behavior* and finally influence a particular behavior (Bitner, 1992). Research also suggests that emotional responses to the environment may be transferred to people and/or objects within the environment (Maslow & Mintz, 1956; Obermiller & Bitner, 1984).

Hypotheses

According to these research studies, we argue that consumers evaluate and have *cognitive* and *affective responses* about the congruence between a products design and the products physical surroundings. Different types of congruence can influence consumers' evaluations positively (Fleck & Quester, 2007). Bloch (1995) emphasizes the relevance of situational factors when evaluating design. In particular we expect the sequence effect, hence the physical context to have an effect on consumer's intentions to buy different brands or products. The evaluation of products is influenced by how well they fit with the design of other products we own or the surroundings. Moreover, Bitner (1992) argues that compatibility has a positive influence on consumer's preferences. Furthermore, (Oklevik, Nysveen & Pedersen, Forthcoming) found that contextually congruent design has a positive effect on people's intentions to recommend fjord cruises and attitudes towards the boat. Hence, we argue that products that provides design that are contextually congruent with the physical context has a positive influence on brand attitude, purchase intention and WOM. Thus, we propose the following hypotheses:

H5a: Design that is contextually congruent with the physical context has a positive influence on brand attitude

H5b: Design that is contextually congruent with the physical context has a positive influence on purchase intentions

H5c: Design that is contextually congruent with the physical context has a positive influence on WOM

3.2.6.2 Social Context

Bitner (1992) further suggests how physical environments represents a subset of social rules, conventions, and expectations in force with a given behavioral setting, serving to define the

nature of social interaction. Bloch (1995) argues how the social setting can influence a consumer who might hold an unfavorable reaction to a particular form or design in private might express more positive responses in the presence of other consumers, which will depend on that consumer's *motivation to comply*. This could for instance be friends or colleagues, which express appreciation of the form, or vice versa. Moreover, consumers decisions are likely to be influenced by what we think others wants us to do, hence a person's *normative beliefs*. Hence, the intention to behave or purchase a product will be influenced by the social context (Vankatesh & Davis, 2000)

Thus, this could be seen as another form of contextual congruence, where one is not talking about blending in with the physical context, but rather to fit in with a group of individuals that together create a specific environment by themselves. This is also in line with Crilly et al. (2004) who argues that those who surround the consumers during their interaction with the product, in some situations, influence the behavior they exhibit and the preferences they express. The latter shows how the social context can lead to *normative beliefs* and *attitude towards the behavior* who further influence behavioral responses.

Hypotheses

Consumers evaluate and have *cognitive* and *affective responses* about the congruence between a product design and the products surroundings. The different type of people surrounding the consumers may influence the preference they express (Crilly et al., 2004). Furthermore, consumers in some situations express more favorable or unfavorable reactions towards brands or products when influenced by other's reactions. Hence, we expect that brand attitudes and purchase intentions are likely to be influenced by the social context. Moreover, we expect the social context to have a positive effect on WOM. This is due to how consumers often tend to become affected by the opinions and suggestions of others. Thus, we argue that products that provides design that are contextually congruent with the social context has a positive influence on brand attitude, purchase intentions and WOM. Based on this line of reasoning we hypothesize the following:

H6a: Design that is contextually congruent with the social environment has a positive influence on brand attitude

H6b: Design that is contextually congruent with the social environment has a positive influence on purchase intentions

H6c: Design that is contextually congruent with the social environment has a positive influence on WOM

3.2.7 Centrality of Visual Product Aesthetics

Whereas sound, scent and taste may be critical for a few products, visual appearance is a key feature for nearly all types of goods. Thus, the visual appearance of a product is an important determinant of the consumer response and a product success (Bloch, 1995). Judgement of products are often based mainly on visual information (Crilly et al., 2004) and consumers increasingly makes choice of brands and products based on *aesthetic value* and the distinctiveness of visual design (Bloch et al., 2003; Dumaine, 1991; Schmitt & Simonson, 1997). Several research studies have looked at the influence of personal characteristics on design preferences. In related work on consumer differences, Bloch et al. (2003) suggest that the marketplace responses clearly indicate strong differences in consumer concern with product appearance or design, a concept they call “centrality of visual product aesthetics” (CVPA). According to Hunt, Radford and Evans (2013) consumers vary in their proclivity toward aesthetics and the importance they place on the design of products. The individual differences between consumers, results in variations in the preferences they express, as well as variation in the importance of these preferences (Crilly et al., 2004; Hunt et al., 2013). However, it can be difficult to explain accurately why consumers react differently to product design, and thus as Bloch et al. (2003) argues how some individuals simply value the appearance of products higher than others.

3.2.7.1 Definition

According to Bloch et al. (2003), CVPA influences customer’s product related assessment and behavior. CVPA is defined by Bloch et al. (2003) as “the overall level of significance that visual aesthetics hold for a particular consumer in his/her relationship with products” (p. 29). The CVPA is represented as a continuous individual difference variable that ranges from near to the number zero to a very high level, where visual aesthetics dominate a consumer's acquisition and usage of goods. Thus, are consumers exhibiting a high level of CVPA expected to have a greater than average concern for visual aesthetics that is independent of both category and setting. In addition to the latter, consumers with high CVPA consider aesthetics to be important for a wider range of product categories than consumers scoring low on visual aesthetics centrality. Furthermore, and what is important to notice, is that CVPA

captures the general significance or importance of visual product aesthetics rather than the preferences for or attitudes toward a particular aesthetics style (Bloch et al., 2003). Finally, Bloch et al. (2003) indicate how one could expect a greater effect size with product categories where design plays a greater role in identity expression, *symbolic value*, or public display.

3.2.7.2 Dimensions

According to Bloch et al. (2003) CVPA encompasses four related facets or dimensions. These four dimensions are the following; (1) The value a consumer assigns to product appearances in enhancing personal and even social well-being, (2) acumen, or the ability to recognize, categorize or evaluate product design, (3) the level of response to visual design aspects of products, and (4) the determinancy of visual aesthetics in affecting products preferences and purchase satisfaction.

Value

The perceived value of visual product aesthetic (*aesthetic value*) as a means of enhancing quality of life, both personally and for society in general, is one element comprising CVPA (Bloch et al., 2003). Thus, consumers with a high CVPA believe that encounters with beautiful objects positively influence the quality of their daily lives or allow them to satisfy higher level of needs (Talch & Brunel 1996 as referred to in Bloch et al., 2003).

For these types of consumers parts of the value dimension captures the tendency for aesthetic properties to be deemed “sacred”. Furthermore, and according to Bloch et al., (2003), consumers with a high CVPA are often under the impression that fine design is valuable to society in general and further that the quality of life for everyone is affected by the quality of the designed environment. Belk, Wallendorf and Sherry (1989) referred to in Bloch et al. (2003), presented the concept of sacred possessions where certain objects are highly valued and are as extension of the self-treated in a respectful way.

Acumen

Acumen is another facet of CVPA. Inspired by Osbourne (1986), Bloch et al., (2003) refers to acumen as “the ability to recognize, categorize, and evaluate products designs and is expected to vary within a population” (p. 553). Csikszentmihalyi and Robinson (1990) referred to in Bloch (1995) proposes that design acumen is something that certain people are born with. As

mentioned before the level of interest for product design among consumers differ. This also applies for the level of acumen different consumers are endowed with (Bloch et al., 2003). Bloch (1995) argues that people with high level of design acumen make faster sensory connections and express more sophisticated preferences concerning the design of things than those with little design acumen. According to Bloch et al. (2003), some consumers have a so called “good eye” for analyzing the visual art. Furthermore, some consumers are more visual while other people's ability lie in forms of intellectual pursuit (Bloch et al., 2003). There are differences among consumers in how much weight they grant aesthetic elements, and some customers prefer visual over verbal processing. Highly visual individuals value aesthetic elements higher in making product choices than less visual individuals (Bloch et al., 2003; Holbrook, 1986).

The Level of Response

The fascination of beautiful objects has existed since the beginning of the human history. Thus, has the aesthetic dimensions of an object had the capacity to generate some kind of response among consumers (Bloch et al., 2003). Regarding the action of impulse buying Rocks (1987) referred to in Bloch et al. (2003) argue how this type of buying frequently involves products that have strong aesthetic or styling elements and that stimulus characteristics may produce impulse buying. According to Bloch et al. (2003) responses to design aesthetics can be both *cognitive* and *affective*. Responses to the design aesthetics of different objects have both valence and intensity. Thus, will certain forms of design generate positive responses in a particular consumer while others evoke responses that are rather negative (Bloch et al., 2003).

Design Determinancy

The fourth and last dimension of CVPA is related to the extent to which product aesthetics are used as an evaluation criterion (Bloch et al., 2003). Bloch et al., (2003) argue how visual appearance is almost always considered in comparing products and thus is a key determinant of purchase satisfaction. It is thus the level of CVPA a consumer obtain that determine how strong the products design is as an evaluation criterion is going to be when purchasing a product. However, the findings of Bloch et al. (2003), showed that this fourth dimension failed to materialize. It is probable that determinacy is subsumed by one or more of the other three dimensions.

According to the findings of Bloch et al. (2003), the CVPA is comprised conceptually of the three dimensions, value, acumen and response, that are useful in understanding the construct. However, their findings suggest that the dimensions are unidimensional in scope and, thus, in measurement.

3.2.7.3 Hypotheses

Research has revealed that CVPA influences consumer's product related evaluations and behaviors (Bloch et al., 2003). Bloch et al. (2003) argue how visual appearance is almost always considered when comparing products and thus is a key determinant of purchase satisfaction. It is thus the level of CVPA consumers obtain that determine how strong the product design is as an evaluation criterion when purchasing a product. According to Homburg et al. (2015) product design and appearance has a positive influence on brand attitude and can contribute to build a strong brand identity. Findings by Bloch et al. (2003) indicate that high aesthetic products lead to more favorable product attitudes and higher purchase intentions. They also found that consumers with high CVPA gave higher attitudes and purchase intention scores to high aesthetic products and lower scores to low aesthetic products. Furthermore, CVPA is also expected to influence WOM. Hence, we propose the following:

H7a: Centrality of visual product aesthetics has a positive influence on brand attitude

H7b: Centrality of visual product aesthetics has a positive influence on purchase intentions

H7c: Centrality of visual product aesthetics has a positive influence on WOM

4. Method

4.1 Data Collection and Sample

In order to test the hypotheses, an online survey was conducted in the period between April 14th and April 26th, 2018. The survey was distributed to students at the Norwegian School of Economics. In order to get sufficient responses and robust findings (Brewer, 2000), we sent out the invitations to contribute in the survey in two rounds. We first sent the invitation to participate in the survey by email to 4256 students at the Norwegian School of Economics, which yielded 213 respondents. Furthermore, to secure more robust findings, a reminder to participate in the survey was sent out on the ninth day. This yielded an addition of 205 responses, which brought the total number to 418. This gave us a response rate of 9,8 %.

In Table 2, the sample characteristics for the full sample is presented. To ensure variance in stimuli, the survey included photographs of three training jackets with different design. Three different versions of the survey were made, where the first page changed between the different training jackets. The respondents were randomly assigned to the different training jackets. The first page consisted of a photograph of one of the three training jackets shown in Appendix B. Table 2 includes the full sample in terms of frequency and percent. The nearly equal gender mix in the sample represents well the gender distribution among Norwegian consumers (SSB, 2018a). However, the education level is higher in our sample than for the general population (SSB, 2017). In addition, the sample represents a younger population than would be representative for the population in Norway (SSB, 2018b). Nevertheless, we experienced several participants that was in the age group 35-44 and 45-54, respectively 45 and 25 respondents (Table 2). The latter was due to how the emails also were sent to NHH executive students.

Table 2: Sample Demographics

	Sample (N=225) Frequency	Sample (N=225) %
Gender		
Female	99	44.0
Male	126	56.0
Age		
Under18	1	.4
18-24	79	35.1
25-34	73	32.5
35-44	45	20.0
45-54	25	11.1
55-64	1	.4
65 +	1	.4
Education		
Elementary School		-
High School	2	.9
1-3 year(s) higher education	57	25.3
4 years higher education or more	166	73.8

Table developed based on analysis in SPSS

During the execution of this survey no compensation or prizes were offered for participation. This was to avoid careless responses submitted just for the purpose of attaining a reward. Furthermore, and to minimize careless responses, respondents who had given more than eight successive identical responses (N=27), were eliminated from the final sample. The respondent using the least time to answer the survey used two minutes and fifty-one seconds, which was considered an acceptable time to complete the survey. Furthermore, we eliminated another three participants due to how they chose to click “no” on the first question which stated the following; *“If you confirm that you have read all the information above and further consent to participate in this survey voluntarily, click "Yes" and continue to the next page of the survey”* (Appendix C). Moreover, another attempt to minimize careless respondents was to remove all the participants who had not completed the whole survey (N=160). As a final action we removed one last participant from the sample size based on how that participant had ticked off that he went to elementary school on the question about education (Appendix C). The final number of respondents in our survey was 225, which gave us a response rate of 5.3 %.

4.2 Research Design and Procedure

When designing this survey several factors were considered to ensure reliability of the results, which can be threatened by systematic biases or errors, specifically in terms of observer bias and error, participant bias and error, and method bias (e.g., Podsakoff, MacKenzie, Lee and Podsakoff, 2003; MacKenzie & Podsakoff, 2012). According to Podsakoff et al. (2003), the chance of participants being biased will always be present. However, different measures can be taken in order to diminish the potential for such biases.

Social desirability bias is one general concern for this type of research. This type of bias refers to respondents' providing answers that may not hold true for them but is perceived to be the correct or socially acceptable answer to a question (Maccoby & Maccoby, 1954). According to MacKenzie & Podsakoff (2012) this bias can be reduced by firstly guaranteeing the participants full anonymity. Furthermore, one can explain the participants in the cover story that people may have different opinions about issues addressed in this questionnaire. Thus, in order to avoid answers considered as "socially acceptable" in our study, we guaranteed anonymity of all the respondents both in the cover story and the invitation to participate in the questionnaire (Appendix C). Moreover, the respondents were not observed while answering the online survey, which is in line with the arguments of Podsakoff et al. (2003). To increase the willingness of respondents to self-disclose we choose to add the sentence "*we are looking for your honest evaluation*" in the cover story (MacKenzie & Podsakoff, 2012).

Another potential type of bias that can occur is method bias, which can take place in several forms. One of these are what MacKenzie and Podsakoff (2012) refers to as lightly scales. Lightly scale occurs when a respondent is exposed to an unending stream of questions, which can make them both fatigued and irritated (MacKenzie & Podsakoff, 2012). In our survey, we therefore were aware to shorten the questions as much as possible and further eliminate the ones of little relevance. The latter is in line with suggestions from MacKenzie and Podsakoff (2012). In addition, we chose to divide the questions into several sections so that the items for each latent variable appeared on a page alone. This in order to avoid an unending stream of questions.

According to Petty and Cacioppo's (1986) referred to in MacKenzie and Podsakoff (2012) excessive repetition of a message decreases the motivation of the respondents to maintain the

cognitive effort required to provide optimal answers, and further increase the desire to satisfice by responding in a nondifferential manner or stylistically. Thus, we have, and as MacKenzie and Podsakoff (2012) and Podsakoff et al. (2003) suggests, tried to vary the format of our survey by intermixing items from different constructs. One example from our study is how we have changed the chronological order of the CVPA items and the contextual congruence design items. We chose to place the drivers from CVPA and contextually congruent design every other (Appendix C). By doing this the questions of these item do not look so similar as they otherwise would have done. Moreover, MacKenzie and Podsakoff (2012) argues that respondents sometimes lack motivation towards the end of the survey due to fatigue, and thus are more likely to answer “I don’t know” or “no opinion” in this part of the survey. Hence, we put the easiest questions, such as the demographics question at the end of the survey, to reduce this kind of bias.

Even tough scales that are short in length have advantages, in the way that they can reduce some forms of bias like fatigue and careless responses, they can actually risk increasing other forms of bias (Hinkin, 1996). Harrison, McLaughlin and Coalter (1996) explain how this is due to that shorter scales may increase the chance that respondents remember answers to previous question, which in turn may influence their answers to current questions. Thus, by intermixing items of different constructs in our survey and placing the items for each latent variable on a separate page we can reduce this type of common method variance (Podsakoff et al., 2003). In addition, the participants were not able to “click” backwards when answering questions in the survey. This prevented the participants from looking at previous question which in turn made it more difficult to copy their former answers.

Another factor that can influence the motivation of the respondents is questions related to retrospective recall (MacKenzie & Podsakoff, 2012). Sometimes the retrieval process can be difficult. For instance, the less complete the information retrieval, the less is the respondents able to fill in missing details in what is recalled and thus the greater is the motivation to satisfice (MacKenzie & Podsakoff, 2012). MacKenzie and Podsakoff (2012) further states that a strategy to prevent this factor would be to refocus the questions and rather ask about current states due to how this will reduce the effort required for retrieval. Therefore, we decided to use an imagined current situation regarding the purchase of the training jacket instead of asking the respondents to think of the last time they bought a sportswear product.

One other possible source of method bias concerns the respondent's capability to make judgements and comprehend the meaning of questions. This may be affected by issues of item complexity or ambiguity that comes from complex or abstract questions, use of double-barreled questions or words with multiple meanings (Hinkin, 1995; Podsakoff et al., 2003). All items used in our questionnaire were based on previously validated scales and we were careful not to write something or use a wording that could possibly confuse the respondents.

When it comes to the scale measurement MacKenzie and Podsakoff (2012) recommends reducing common method bias due to similar scale attributes. Thus, in the introduction of our questionnaire we emphasized the importance of respondents answering all items to the best of their ability, even though some items might seem similar. Furthermore, Podsakoff et al. (2003) argues how items with different response formats can be combined to reduce the risk of common method bias. Based on the latter we chose both Likert scales and semantic differential scales in our survey (Appendix C).

Finally, all data was imported automatically into SPSS and Mplus 7.2, and thereby removing the danger of data plotting errors associated with manual entry.

4.3 Measures of Validation

Our research model is based on constructs with measurement items that are well-founded in marketing and product design literature. We adapted the measures of the variables to the specific context of a training jacket. The design dimensions in the model were measured using the product design scale of Homburg et al. (2015). Each design dimension, aesthetic, functionality and symbolism, were measured using three items (see Table 3). The contextually congruent design measures are based on the fit measures used by Speed and Thompson (2000). Regarding the second category of drivers, contextually congruent design, we chose to measure it as a two-dimensional construct consisting of the dimensions physical context and social context. Due to how it did not exist an established scale for measuring the social context dimension, we developed our own items based on the already existing fit scale of Speed and Thompson (2000). Moreover, the centrality of visual product aesthetics is measured through use of the CVPA scale developed by Bloch et al. (2003). Three items are used for each of the dimensions; value, acumen and response (Table 3). In the survey we used 7-point Likert scales (1 = "totally disagree", 7 = "totally agree") to measure aesthetics,

functionality, symbolism, contextually congruent design and CVPA. Purchase intentions were measured using two items which is also retrieved from Homburg et al. (2015) inspired by Coulter and Coulter (2005) and Herbst et al. (2012): “How do you feel about buying this training jacket in the near future?” and “When would you be most willing to buy this training jacket?”. Both were measured using 7-point Likert scales (1 = “definitively would not buy”, 7 = “definitively would buy”) and (1 = “never”, 7 = “within the next 3 months”). We measured WOM based on two items, first: “I would tell other people about that training jacket” inspired by Chitturi et al. (2008), and second: “I would recommend that other people buy the training jacket” inspired by Cheema and Kaikati (2010). Both WOM items were measured using 7-point Likert scales (1 = “totally disagree”, 7 = “totally agree”). Finally, we measured brand attitude toward the training jacket with three of the four items used by Nysveen, Pedersen, and Thorbjørnsen (2005). We assessed brand attitude towards the training jacket with three 7-point semantic differential scales (bad/good, unfavorable/favorable, and negative/positive). Table 3 provides an overview of the items used. For references of the different items used in our questionnaire see Appendix D.

Table 3: Item Wording

Construct	Item	Description
Aesthetic	A1	* This training jacket looks visually striking
	A2	* This training jacket is good looking
	A3	* This training jacket looks appealing
Functional	F1	* This training jacket is likely to perform well
	F2	* This training jacket seems capable of doing its job
	F3	* This training jacket seems to be functional
Symbolic	S1	* This training jacket helps me in establishing a distinctive image.
	S2	* This training jacket is helpful to distinguish myself from the mass
	S3	* This training jacket accurately symbolize my achievement.
Social context	CCDS1	* There is a logical connection between the design of this training jacket and the training clothes of the people I exercise with
	CCDS2	* The image of this training jacket and the training clothes of the people I exercise with are similar helpful to distinguish myself from the mass.
	CCDS3	* This training jacket and the clothes of the people I exercise with fit well together
	CCDS4	* This training jacket and the training clothes of the people I exercise with stands for similar things
Physical context	CCDP1	* There is a logical connection between the design of this training jacket and the physical environment in which I am exercising
	CCDP2	* The image of this training jacket and the physical environment in which I am exercising are similar
	CCDP3	* This training jacket and the physical environment in which I am exercising fit well together
	CCDP4	* This training jacket and the physical environment in which I am exercising stand for similar things
CVPA	CVPAV1	* Owning products that have superior designs makes me feel good about myself
	CVPAV2	* I enjoy seeing displays of products that have superior designs

	CVPAV3	* A product's design is a source of pleasure for me
CVPA	CVPAA1	* Being able to see subtle differences in product designs is one skill that I have developed over time
	CVPAA2	* I see things in a product's design that other people tend to pass over
	CVPAA3	* I have the ability to imagine how a product will fit in with designs of other things I already own
CVPA	CVPAR1	* Sometimes the way a product looks seems to reach out and grab me
	CVPAR2	* If a product's design really "speaks" to me, I feel that I must buy it
	CVPAR3	* When I see a product that has a really great design, I feel a strong urge to buy it
Brand Attitude		<i>Overall, how will you rate this training jacket along the following description</i>
	ATT1	* Bad/good
	ATT2	* Unfavorable/favorable
	ATT3	* Negative/positive
Purchase Intentions	PI 1	* How do you feel about buying this training jacket in the near future?
	PI 2	* When would you be most willing to buy this training jacket?
Word of Mouth	WOM 1	* I would tell other people about this training jacket
	WOM 2	* I would recommend that other people buy this training jacket

5. Analysis and Results

The data collected with our survey were analyzed using the statistical analytics software SPSS and structural equation modeling (SEM) in Mplus 7.2. Muthen and Muthen (1998) explain how SEM is a more general form of confirmatory factor analysis (CFA) in which latent factors may be regressed onto each other. It allows for simultaneous analysis of the relationship between several independent and dependent variables. Before conducting the analysis, we first tested the assumptions of multivariate analysis as detailed below.

5.1 Assumptions of Multivariate Analysis

There exist several assumptions that needs to be met when conducting multivariate analysis, such as normality, linearity, homoscedasticity and absence of autocorrelation (Field, 2009; Hair, Black, Babin & Anderson, 2013). We tested these assumptions using SPSS.

The assumption regarding normality refers to normal distribution of the residuals of variables (i.e., constructs). Normality exists if the population error “u” is independent of the explanatory variables and is normally distributed with zero mean and variance (Wooldridge, 2015). Significant deviations from normality will affect the reliability of the T- and F-test, especially if the conducted sample is small, and could invalidate all resulting statistical tests (Hair et al., 2013). We conducted a Shapiro-Wilk Normality Test in SPSS to assess for univariate normality of the latent constructs. From the Shapiro-Wilk test (Appendix E) we can see that all the constructs have significant p-values, hence rejecting the null hypothesis of normality. The test indicates non-normal distribution for all constructs. However, on inspection of the residual histograms and Q-Q plots (Appendix F) all the constructs seemed to approximate normal distribution. Moreover, we examined the construct’s skewness and kurtosis. Skewness is considered a measure of symmetry, while kurtosis is a measure of the thickness of the tails of the distribution compared to the standard normal distribution (Wooldridge, 2015). All of the construct’s values of skewness and kurtosis (Appendix E) fall within the acceptable range of -2 to +2 (George & Mallery, 2010), indicating that the data is fairly normal. Even though some of the constructs may be non-normal, the deviation can be considered small due to how non-normality is less of a concern for large samples ($N > 200$), which is the case for our sample size.

Homoscedasticity is an important condition for multivariate analysis and concerns the variance of the error terms. The variance of the unobserved error needs to be similar across the range of predictor variables. Homoscedasticity fails whenever the variance of the unobserved factors changes for different segments of the population, where the segments are determined by the different values of the explanatory variables (Wooldridge, 2014). If the homoscedasticity assumption is violated, heteroscedasticity occurs. The consequences of violating the homoscedasticity assumption depends on the degree of heteroskedasticity. However, according to Wooldridge (2014) heteroskedasticity does not cause bias or inconsistency in the betas. The interpretation of goodness-of-fit measures is also unaffected by the presence of heteroscedasticity. In order to determine whether the data was homoscedastic, we examined scatter plots of the predicted residuals for uneven distributions. The examination of the scatterplot did not reveal any clear violations of homoscedasticity (Appendix F).

The third assumption that has to be met when performing a multivariate analysis is linearity. In our case, this was done by analyzing the residuals and partial regression plots for the independent variables (Hair et al., 2013). These plots are provided in Appendix E, and show no clear signs of non-linear patterns, hence satisfying the assumption of linearity.

The fourth assumptions regard autocorrelation and refers to the correlation between the residuals of two observations in a model. This leads the variance and estimated standard errors to increase (Field, 2009). We applied the Durbin-Watson test on the data to assess for autocorrelation, which produced a score of 1.929 for the model with purchase intention as a dependent variable and 2.018 when WOM was set as the dependent variable (Appendix G). This is well within the acceptable range of 1 and 3 for both the models (Field, 2009). The latter indicate no sign of autocorrelation.

Moreover, we also assessed for multicollinearity. Multivariate analysis assumes that the independent variables are not highly correlated with each other. Inspection of the correlation matrix revealed that the correlations does not exceeds the recommended 0.80 cut-off value for multicollinearity (Berry & Feldman, 1985). This assumption can also be tested using the tolerance values and variance inflation factors (VIF). The values showed acceptable scores for all constructs (tolerance = 0.36-0.82, VIF = 1.23-2.79. Appendix G), compared to the levels recommended by Hair et al. (2013).

5.2 Analysis

Anderson and Gerbing (1998) provide guidance for substantive researchers on the use of SEM in practice for theory testing and development. We adopted a two-stage testing procedure based on recommendations from Anderson and Gerbing (1998), consisting of the following; first, the measurement model for the constructs was estimated using confirmatory factor analysis; second, the structural relationships between the constructs were examined to evaluate the research model and test the research hypotheses.

5.2.1 Confirmatory Factor Analysis

We performed a confirmatory factor analysis of the measurement model on the independent, mediating and dependent variables using Mplus 7.2. This in order to assess the overall fit of the model.

To test the goodness-of-fit of the measurement model, one can examine the chi-square (χ^2) value of the model. The chi-square (χ^2) value of the model should preferably be low and have insignificant p-values. According to Bentler (1990) chi-square statistics often tend to be high and significant in cases with larger sample sizes and where several items are tested. For our model the chi-square value was quite large and significant ($\chi^2 = 452.8, p < 0.05$). This is not surprising considering the fact that the research model is quite complex, and the sample size is relatively large ($N=225$). There have been developed several other goodness-of fit measures in order to correct for the problems with inherent bias in the chi-square statistics for large sample sizes and complex models.

Hair et al. (2013) argues that there should be used three to four measures, including at least one absolute fit indices and one incremental indices to provide evidence of acceptable fit for the model. We therefore used three absolute fit indices and two incremental indices to test the goodness of fit of the model. We used recommended values by Hair et al. (2013) to evaluate the fit of the model.

Looking at the absolute fit indices, the root of the mean square error of approximation (RMSEA) showed acceptable fit for the model ($RMSEA = 0.040$). Lower RMSEA values indicate better fit. The RMSEA attempts to correct for sample size and model complexity by including them in the calculation (Hair et al., 2013). Moreover, the normed chi-square (χ^2/df)

which gives us the ratio of the chi-square to the degrees of freedom also showed a good fit ($\chi^2/df = 1.36$). The last of our absolute fit indexes, the standardized root mean residual (SRMR) additionally showed a good fit (SRMR = 0.040). When it comes to evaluation of the incremental indices we used both the comparative fit index (CFI) and the Tucker-Lewis index (TLI). The CFI is a measure of model fit relative to other models and performs well regarding of sample size (Bentler, 1990). The TLI compares the normed chi-squared of the null and specified model taking the degrees of freedom into account. The CFI and TLI should be above 0.90 to provide acceptable model fit (Cheung & Rensvold, 2002), which is satisfied in our model (CFI = 0.974, TLI = 0.968). The measurement model therefore met the first requirement for measurement validity (Appendix H). Goodness-of-fit values for the measurement model are shown in Table 4.

Table 4: Confirmatory Factor Analysis

Goodness-of-Fit Test	Abbreviation	Ranges indicating good fit*	Measurement model
Chi-square	χ^2	n.a.	452.82
Degrees of freedom	df	n.a.	332
Normed chi-square	χ^2/df	≤ 2	1.36
Root mean square error of approximation	RMSEA	< 0.05	0.040
Standardized root mean residual	SRMR	< 0.05	0.040
Tucker-Lewis Index	TLI	> 0.95	0.974
Comparative fit Index	CFI	> 0.95	0.968

Table developed based on analysis in Mplus

*Based on recommended values from Hair et al. (2013)

5.2.2 Construct Validity

Convergent validity is the first condition for construct validity (i.e., internal consistency), and refers to the requirement that a construct's items should converge or have in common a large proportion of variance to cover the same underlying concept. Furthermore, when one has a set of measured items that actually reflects the theoretical latent construct the items were designed to capture, it is said that you have achieved construct validity. This is the second requirement for validity of the measurement model (Hair et al., 2013).

Factor loadings for all items were first examined (Appendix I), to test the construct validity. Hair et al. (2013), provide information about how standardized factor loading estimates

should ideally be 0.7 or higher, and at least 0.5 or higher to be considered acceptable. Table 5 shows the factor loadings for all items, all at the 1% level. Originally, we had three items with factor loadings below the 0.5 threshold (A1, S1 and S3) and one item with a factor loading above 1 (S2). We therefore decided to eliminate them from the model, thus all remaining items scored above the threshold of 0.5. The elimination of the items resulted in a complete exclusion of the symbolic dimension from our measurement and structural model, due to how it failed to materialize. This may be explained by how the symbolic dimension can be loaded on or subsumed by another of the dimensions or categories. Another possible explanation can be how the symbolic dimension simply is not able to express or important for how consumers evaluate product designs of sportswear. The exclusion of the symbolic dimension improved the fit of the measurement model. Moreover, we also decided to exclude one of the items from the aesthetic dimension (A1) based on a factor loading below the absolute threshold of 0.5. Thus, it did not load on the same factor as the other items of the aesthetic design dimension. All remaining items loaded on the factor they were supposed to load on.

All the items included in the measurement model scored above the 0.5 threshold (Table 5). Thus, the factor loadings of all retained items, as reported in Table 5 indicate an acceptable convergent validity. Furthermore, we tested the constructs based on Cronbach's alpha (α), composite reliability (CR), and average variance extracted (AVE). Cronbach's alpha is the most used method to measure interrelatedness (Raykov, 1997). However, other measures of convergent validity can be better suited depending on the type of measurement. Hair et al. (2013) suggest that CR is the most commonly used method in conjunction with SEM models. Consequently, both the CR and the AVE, in addition to Cronbach's alpha, is included in the analysis. The CR, AVE scores and Cronbach's alpha of all the constructs are reported in Table 5. According to Anderson and Gerbing (1988), Fornell and Larcker (1981) and Nunnally (1978), recommended values for these measures are $\alpha > 0.7$, $CR > 0.7$, and $AVE > 0.5$. From Table 5 we can see that all constructs exceed the recommended values, indicating good internal consistency.

Table 5: Items and Convergent Validity

Construct	Item	Description	Loadings	α	CR	AVE
Aesthetic	A2	* This training jacket is good looking.	0.92	0.93	0.92	0.87
	A3	* This training jacket looks appealing.	0.95			
Functional	F1	* This training jacket is likely to perform well	0.66	0.86	0.86	0.68
	F2	* This training jacket seems capable of doing its job	0.94			
	F3	* This training jacket seems to be functional	0.85			
Social context	CCDS1	* There is a logical connection between the design of this training jacket and the training clothes of the people I exercise with	0.74	0.89	0.89	0.67
	CCDS2	* The image of this training jacket and the training clothes of the people I exercise with are similar helpful to distinguish myself from the mass.	0.84			
	CCDS3	* This training jacket and the clothes of the people I exercise with fit well together	0.90			
	CCDS4	* This training jacket and the training clothes of the people I exercise with stands for similar things	0.79			
Physical context	CCDP1	* There is a logical connection between the design of this training jacket and the physical environment in which I am exercising	0.85	0.93	0.93	0.77
	CCDP2	* The image of this training jacket and the physical environment in which I am exercising are similar	0.89			
	CCDP3	* This training jacket and the physical environment in which I am exercising fit well together	0.91			
	CCDP4	* This training jacket and the physical environment in which I am exercising stand for similar things	0.85			
	CVPAV1	* Owning products that have superior designs makes me feel good about myself	0.66	0.79	0.79	0.55
	CVPAV2	* I enjoy seeing displays of products that have superior designs	0.74			
	CVPAV3	* A product's design is a source of pleasure for me	0.82			
	CVPAA1	* Being able to see subtle differences in product designs is one skill that I have developed over time	0.84	0.80	0.80	0.58
	CVPAA2	* I see things in a product's design that other people tend to pass over	0.82			
	CVPAA3	* I have the ability to imagine how a product will fit in with designs of other things I already own	0.61			
	CVPAR1	* Sometimes the way a product looks seems to reach out and grab me	0.59	0.80	0.81	0.59
	CVPAR2	* If a product's design really "speaks" to me, I feel that I must buy it	0.82			
	CVPAR3	* When I see a product that has a really great design, I feel a strong urge to buy it	0.88			
Brand Attitude		<i>Overall, how will you rate this training jacket along the following description</i>		0.96	0.96	0.88
	ATT1	* Bad/good	0.94			
	ATT2	* Unfavorable/favorable	0.94			
	ATT3	* Negative/positive	0.93			
Purchase Intentions	PI1	* How do you feel about buying this training jacket in the near future?	0.88	0.85	0.85	0.75
	PI2	* When would you be most willing to buy this training jacket?	0.84			

Word of Mouth	WOM1	* I would tell other people about this training jacket	0.89	0.85	0.86	0.75
	WOM2	* I would recommend that other people buy this training jacket	0.84			

Table developed based on calculations from analysis conducted in Mplus.

Note. Cronbach's α , construct reliability (CR), and AVE from the confirmatory factor analysis. Values indicating convergent validity (Hair et al., 2013): Loadings > 0.5 , $\alpha > 0.7$, CR > 0.7 , AVE > 0.5 .

Discriminant validity is the second condition for construct validity and concerns the degree to which measurements that not are supposed to be related actually are unrelated (Hair et al., 2013). The inter-constructs correlations were evaluated in order to assess for discriminant validity. As we can see from Table 6, the correlations among the six constructs are significantly less than 1. According to Berry & Feldman (1985) the recommended cut-off value for multicollinearity is 0,8. Moreover, the constructs should share more variance with their items than with the other constructs for discriminant validity. This can be tested by looking at the square root of the AVE, which should be larger than the correlations between the constructs (Fornell & Larcker, 1981). Table 6 provides an overview of the AVE square roots, which are represented by the diagonal values. All the AVE square roots are larger than the inter-construct correlations, thus there is good evidence that the discriminant validity criteria are met (Fornell & Larcker, 1981; Hair et al., 2013). In conclusion, both the convergent validity and the discriminant validity for all constructs are met.

Table 6: AVE Square Roots and Inter-Construct Correlations

	Aest	Func	CVPAV	CVPA A	CVPAR	CCDS	CCDP	Attitude	PI	WOM
Aesthetic	.934									
Functionality	.369**	.823								
CVPA value	.053	-.025	.742							
CVPA acumen	-.017	-.088	.438**	.763						
CVPA respons	.002	-.047	.432**	.324**	.770					
CCD social context	.492**	.260**	.127	-.063	.081	.819				
CCD physical context	.401**	.274**	.194**	.017	.064	.600**	.875			
Brand attitude	.783**	.395**	.048	-.077	-.028	.467**	.418**	.936		
Purchase intention	.621**	.275**	-.042	-.175**	.001	.466**	.344**	.697**	.863	
WOM	.451**	.205**	-.010	-.056	.015	.300**	.266**	.539**	.605**	.865

Correlations, and square root of AVE (bold numbers along the diagonal). Numbers based on analysis conducted in Mplus.

** . Correlation is significant at the 0.05 level (2-tailed).

5.2.3 Common Method Bias

There will always be a risk of the presence of common method bias when doing model testing. Common method bias is present if for example variance is attributable to the measurement method instead of the constructs the measures represents (Bagozzi & Yi, 1991). As outlined in Chapter 4.2, there were implemented several preventive procedures against method bias when designing the survey. However, no research design can guarantee against method bias. We conducted the Harman's one-factor test to assess for common method bias in the model. The Harman test shows whether one factor accounts for the majority of the variance. The single factor that accounted for the majority of the variance accounted for 30.8 % (Appendix J), which is sufficiently below the recommended threshold of 50 % (Podsakoff & Organ, 1986). Thus, common method bias was not a threat to the analysis.

5.2.4 Descriptive Statistics

The descriptive statistics for the constructs are reported in Table 7. The table shows the constructs in terms of their mean, standard deviation, skewness and kurtosis. For purchase intentions (2.23) and WOM (2.27) there are observed relatively low means, while the CVPA dimension value (5.18) has a relatively high mean. The strongest skewness (-1.186) and kurtosis (1.978) is also found for the value dimension of CVPA. However, as previously mentioned, all values for skewness and kurtosis are within the recommended range of -2 to +2 (George & Mallery, 2010).

Table 7: Descriptive Statistics

Construct	Mean	Std. Deviation	Variance	Skewness	Kurtosis
Aesthetics	3.51	1.47	2.16	.092	-1.023
Functionality	4.78	.98	.96	-.837	1.582
Social context	3.60	1.13	1.28	-.148	-.369
Physical context	3.72	1.18	1.39	-.376	-.352
CVPAV	5.18	.99	.98	-1.186	1.978
CVPAA	4.24	1.26	1.59	-.311	-.170
CVPAR	4.73	1.13	1.28	-.674	.102
Attitude	3.46	1.20	1.44	.128	-.314
Purchase Intentions	2.23	1.17	1.37	.769	-.094
Word of Mouth	2.27	1.07	1.14	.579	-.554

Table developed based on analysis conducted in SPSS

5.3 Results

We tested the hypotheses with structural equation modelling in Mplus 7.2, using the data collected from our sample of 225 respondents. In our structural model, we investigated the relationship between the three categories of drivers proposed in the research model (i.e. product design, contextual congruent design and centrality of visual product aesthetics) and purchase intention and WOM. Furthermore, we investigated the mediating effect of brand attitude. In addition, we also investigated the effect of aesthetic on functionality. The result of our analysis is shown in Figure 2 and 3 and includes the standardized path coefficients for all significant paths and the explained variance of brand attitude, purchase intention and WOM (Appendix L). The structural model for purchase intention is shown in Figure 2 and demonstrated satisfactory fit ($\chi^2 = 396.2$ $p = 0.0000$, $\chi^2/df = 1.38$, RMSEA = 0.041, SRMR = 0.041, TLI = 0.969, CFI = 0.975). The same applies for the structural model of WOM shown in Figure 3 ($\chi^2 = 406,5$ $p = 0.0000$, $\chi^2/df = 1,41$, RMSEA = 0.043, SRMR = 0.040, TLI = 0.965, CFI = 0.972) (Appendix H).

Figure 2: Structural Equation Modeling Results Purchase Intention

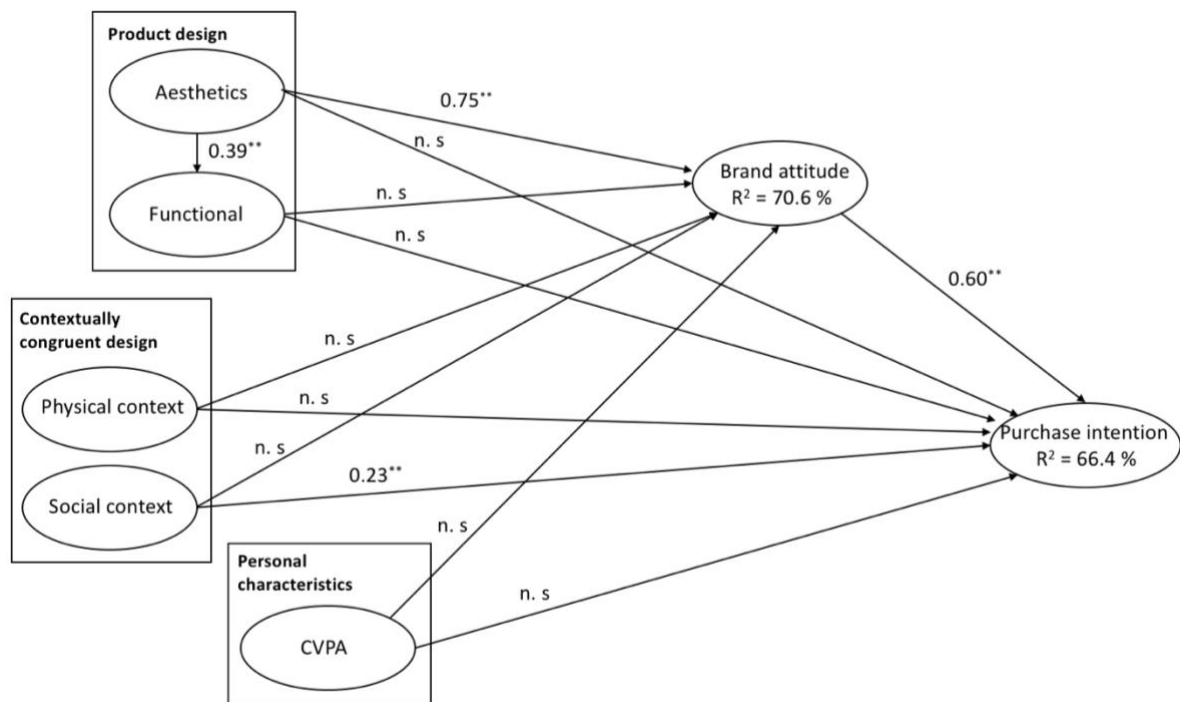
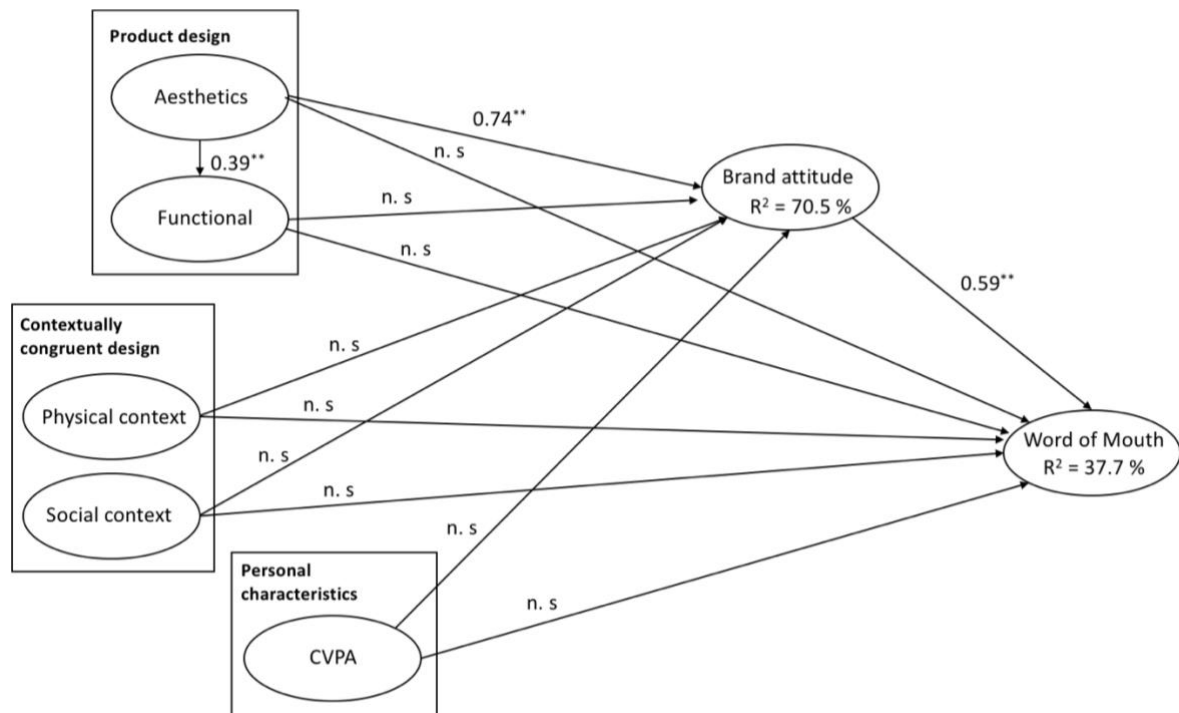


Figure 3: Structural Equation Modeling Results WOM



Previous research shows the different effects of the categories of drivers, separately such as in the study of Homburg et al., (2015), Bitner (1992) and Bloch et al. (2003). However, recently Oklevik et al. (Forthcoming) have studied the influences of both product design and contextually congruent design on tourist's recommendation intentions on Fjord Cruise boats. In our study we have chosen to study three categories of drivers at once; dimensions of product design, contextually congruent design and CVPA. Furthermore, this research has revealed some additional influences on purchase intention and WOM.

The R-square for the structural model concerning purchase intention is quite high (66.4 %). Thus, the model explains most of the variance in the dependent variables, which indicates that it covers the underlying dimensions of purchase intentions well. The R-squared for the structural model of WOM was 37.7 %, which means that there might be other underlying factors that also explains some of the variation in WOM.

5.3.1 Direct and Indirect Effects

5.3.1.1 Direct Effects

Control variables such as gender, age and education were included in the analysis to avoid confounding of the results. The gender variable was found to have a significant effect on

purchase intention, indicating that females in our study had a greater purchase intention towards the training jacket (Appendix K). However, the effects of the independent variables on the dependent variables in our study were the same, with or without control variables. Thus, we chose to exclude them from the structural models.

Regarding aesthetics, direct influences were only found on brand attitude ($\beta = 0,745, p < 0.000$), supporting the hypothesis H2a. This indicates that the aesthetic dimension of product design is important when it comes to influencing the brand attitude of the consumers. However, a direct effect of aesthetics on functionality was also found, supporting the hypothesis H2d ($\beta = 0.394, p < 0.000$). Thus, the aesthetic judgement of a product may alter how consumer view the actual functionality of that product. Regarding the hypotheses of contextually congruent of design with the social context a direct effect was found on purchase intention. Thus, we find support for H5b ($\beta = 0.226, p > 0.006$). This may indicate how people are concerned to blend or fit in with the people surrounding them in a particular setting, for instance, the gym.

Furthermore, brand attitude shows a direct effect on purchase intention and WOM and thus both the hypotheses H1a ($\beta = 0.602, p > 0.000$) and H1b ($\beta = 0.592, p > 0.000$) was supported. These results suggest that purchase intention and WOM are strongly influenced by brand attitude.

None other significant direct effects were found in the analysis, which indicate that the following hypotheses were not supported: H2b, H2c, H3a, H3b, H3c, H4a, H4b, H4c, H5a, H5c, H6a, H6b, H6c, H7a, H7b and H7c (Table 8).

Table 8: Hypotheses Support

Hypotheses	Relationship	β	p	Support
H1a	Brand Attitude → Purchase Intention	0.60	0.000	Yes
H1b	Brand Attitude → WOM	0.59	0.000	Yes
H2a	Aesthetics → Brand Attitude	0.75	0.000	Yes
H2b	Aesthetics → Purchase Intention	0.11	0.309	No
H2c	Aesthetics → WOM	-0.04	0.759	No
H2d	Aesthetics → Functionality	0.39	0.000	Yes
H3a	Functionality → Brand Attitude	0.06	0.260	No
H3b	Functionality → Purchase Intention	-0.06	0.332	No
H3c	Functionality → WOM	-0.02	0.769	No
H4a	Symbolism* → Brand Attitude	-	-	No
H4b	Symbolism* → Purchase Intention	-	-	No
H4c	Symbolism* → WOM	-	-	No
H5a	Contextually Congruent Design Social Setting → Brand Attitude	0.04	0.588	No
H5b	Contextually Congruent Design Social Setting → Purchase Intention	0.23	0.006	Yes
H5c	Contextually Congruent Design Social Setting → WOM	0.08	0.412	No
H6a	Contextually Congruent Design Physical Environment → Brand Attitude	0.09	0.156	No
H6b	Contextually Congruent Design Physical Environment → Purchase Intention	-0.04	0.600	No
H6c	Contextually Congruent Design Physical Environment → WOM	0.05	0.579	No
H7a	CVPA → Brand Attitude			No
	<i>Value</i>	0.03	0.672	
	<i>Acumen</i>	-0.06	0.352	
	<i>Response</i>	-0.03	0.559	
H7b	CVPA → Purchase Intention			No
	<i>Value</i>	-0.12	0.156	
	<i>Acumen</i>	-0.10	0.155	
	<i>Response</i>	0.11	0.104	
H7c	CVPA → WOM			No
	<i>Value</i>	-0.16	0.138	
	<i>Acumen</i>	0.04	0.704	
	<i>Response</i>	0.13	0.128	

5.3.1.2 Indirect Effects

Aside from the direct effects, aesthetics had an effect on brand attitude, which in turn had a significant effect on the dependent variables purchase intention and WOM. This effect is called an indirect effect and brand attitude is thus considered a mediator. A mediating variable, is defined by Baron and Kenny (1986) as a variable that “represents the generative mechanism through which the focal independent variable is able to influence the dependent

variable of interest” (p. 1173). If only the indirect effect is significant, full mediation is present (Homburg et al., 2015). Due to how the indirect effect, but not the direct effect, of the aesthetic dimension on both purchase intention and WOM was significant, the aesthetic dimension is fully mediated by brand attitude. The structural model of purchase intention explains 70.6 % of the variance in brand attitude towards the training jacket whereas the structural model of WOM explains 70.5%.

5.3.2 CVPA as a Moderator

Based on no support for the hypotheses regarding the effects of CVPA on brand attitude, purchase intentions and WOM, we were interested in investigating whether there were a difference between customers with low and high CVPA. Thus, we chose to examine if the level of CVPA had an effect on the effectiveness between the aesthetic dimension and the three outcome variables. CVPA was then used as a moderator. The findings of Bloch et al. (2003) suggests that consumers with high CVPA place greater importance on product aesthetics in the formation of attitudes and purchase intention than those with low CVPA scores.

To test this relationship, we were initially going to use SEM in Mplus 7.2, but due to some technical issues with this program we had to run the analysis in SPSS. To be able to run this analysis we first split our original dataset into two datasets, where one contained respondents with high CVPA and the other respondents with low CVPA. We split the dataset based on the median value of CVPA. The median value of CVPA for our respondents were 4.77. Thus, respondents with a CVPA score lower than 4.77 were considered as low CVPA consumers, while respondents with scores above 4.77 were considered as high CVPA consumers.

Second, based on the new data from the analysis of these two datasets in SPSS, we calculated the t-values. This to investigate if there was a significant difference between low and high CVPA consumers (Appendix M). The t-values from the analyses are shown in Table 9. All three t-values are considerable lower than the critical value of 1,96, hence, there are now significant differences in the effect of aesthetic on brand attitude, purchase intention and WOM of sportswear for respondents with low and high CVPA scores.

This indicates that CVPA does not moderate the effect of aesthetics on the three outcome variables in our study. Due to how we had to run the analysis in SPSS we had no choice but to

run the drivers on brand attitude, purchase intention and WOM separately, rather than running attitude and purchase intention and brand attitude and WOM together as you can with SEM in Mplus. However, the results of the t-values indicate that it is far from a significant moderating effect due to how they are small and insignificant. This further suggests how employing the analysis in Mplus as SEM analysis would most likely neither have shown any significant moderating.

Table 9: T-values

Relationship	High CVPA		Low CVPA		Significance	
	Unst. b	Std. error	Unst. b	Std. error	t-value	Sig
Aesthetic → Attitude	0.556	0.053	0.533	0.068	0.19	No
Aesthetic → Purchase intention	0.416	0.064	0.400	0.081	0.11	No
Aesthetic → Word of mouth	0.270	0.069	0.237	0.086	0.21	No

Table developed based on analysis in SPSS

6. Discussion

6.1 Summary of Results

Overall, the research model shows good fit and a relatively high explanatory power of respectively 66.4 % for purchase intentions and 37.7 % for WOM. Thus, the drivers in the research models explain quite a lot of the variation in the dependent variables.

The results from our analysis show positive influences of aesthetic design when it comes to brand attitude towards the training jacket, which gives full support to hypothesis H2a. Further, brand attitude positively influences both purchase intention and WOM, hence supporting the hypotheses H1a and H1b. Our study proves that the aesthetic dimension is fully mediated by brand attitude on purchase intention and WOM, which is in line with the findings of previous research studies (i.e. Homburg et al., 2015).

Moreover, our findings show how the aesthetic dimension has a positive influence on the functional dimension on product design, supporting the hypothesis H2d. This finding indicates how the aesthetic appearance of a sports jacket/sportswear may in specific situations contaminate the evaluation of the functional dimension of product design. Finally, our study found that the social context dimension of contextually congruent design had a positive influence on purchase intention, which supports the hypothesis H5b. This finding indicates that consumers concern themselves with what others will think of them if they were to buy a particular sportswear product.

6.2 Theoretical Implications

6.2.1 Significant Effect of Aesthetics

For the first research question concerning the three dimensions of product design's influences on the brand attitude, purchase intentions and WOM of sportswear, significant effect was only found for one of the dimensions of product design. The aesthetic dimension showed a significant direct effect on brand attitude. Moreover, a direct effect was found for aesthetics on functionality. However, it should be noted that previous studies have found direct effects for the three dimensions of product design for other product categories (Candi et al., 2017; Creusen & Schoormans, 2005; Homburg et al., 2015). This can imply that brand attitude,

purchase intention and WOM is better explained with other product categories than that of sportswear.

Homburg et al. (2015) shows how the aesthetic dimension changes into having a direct effect on purchase intention when changing of the product category in question. In their study they used the product design scale on household products and multimedia products, where the last product category showed a direct effect from the aesthetic dimension on purchase intention. According to Homburg et al. (2015) these findings could be quite logical due to how aesthetics plays a larger role for multimedia products than for household products. Our findings suggest that this also applies for sportswear, where the aesthetic dimension weighs heavily.

The level of product involvement can be another possible explanation for the insignificant findings regarding the hypotheses for the functional and symbolic dimension of product design. According to findings of Candi et al. (2017) the effectiveness of the three design dimensions differ depending on the level of product involvement. One can argue that just by seeing a photo of a training jacket for a few minutes, consumer will have relatively low involvement with that product. Hence, this may implicate that the symbolic and functional dimension will be of greater importance if the product involvement were higher, such as when seeing or touching the product in real life.

6.2.2 Significant Effect of Brand Attitude

Moreover, we found that brand attitude had a positive significant effect on purchase intentions and WOM, supporting both the hypotheses of brand attitude. These findings are in compliance with attitude models such as the TRA (Fishbein & Ajzen, 1975), who provides an understanding of how individuals will behave based on their attitudes. Thus, there were found a mediating effect for the aesthetic dimension of product design on purchase intentions and WOM. The latter is also in line with the findings of previous research (i.e Homburg et al., 2015) who found a fully mediating effect on purchase intentions and WOM through the aesthetic dimension of product design.

6.2.3 Positive Influence of Aesthetics on Functionality

In addition, we also found that the aesthetic dimension had a positive significant effect on the functional dimension of product design. This is in line with the study of Hoegg and Alba (2011) who provided an experiment which demonstrated an influence of product form that is independent of aesthetic appeal. Hence, when a product's form suggests a particular level of functional performance, it can alter consumer judgement, even when more objective written information is given. Thus, this could indicate that the aesthetic appearance of a training jacket/sportswear alone can strongly influence a consumer's thoughts/opinions of the training jacket's functional performance.

6.2.4 Significant Effect of the Social Context

The second research question concerns whether products with contextually congruent design positively influence brand attitude, purchase intentions and WOM. Out of the six hypotheses related to this research question only one of them was supported. This hypothesis suggests that products with designs that are contextually congruent with the social context has a significant direct effect on purchase intentions. The latter indicate that the people surrounding the consumers influence the preference that consumers express and their intentions to purchase sportswear apparel.

The social context dimension has, to the best extent of our knowledge, not been studied empirically, and thus is non-existing in previous literature. However, previous research (i.e. Bloch, 1995; Crilly et al., 2004) have shown how some consumers tend to not express their actual opinions or reaction to particular product design when they are situated in a group of people who hold other opinions than them self. The example used before in this thesis is how the social setting can influence a consumer who might hold an unfavorable reaction to a particular form or design in private to express more positive responses in the presence of other consumers. This could for instance be friends or colleagues, which express appreciation of the design, or vice versa.

Other studies have proven a positive relationship between contextually congruent design and the physical context (i.e. Bitner, 1992; Oklevik et al., Forthcoming). Nevertheless, did our hypotheses on this matter showed no significance. A possible explanation to why these hypotheses were not supported in our study can be due to how the physical context is not that

important for consumer's brand attitude, purchase intentions and WOM of sportswear. Hence, consumers may not care that much about whether the sportswear they are wearing during a gym class or a jog fit into or reflect the physical context.

6.2.5 No Effects of CVPA

Finally, none of the hypotheses related to the third research question compromising the concept of CVPA were supported. This indicates that the CVPA does not influence product-related evaluations for sportswear apparel. On the other hand, former literature point at how there are differences among low and high CVPA consumers when it comes to brand attitudes and purchase intentions on low and high aesthetic products (Bloch et al., 2003). An example of the latter could be how one person with a high CVPA has a much stronger purchase intention towards the training jacket than a person with low CVPA. Bloch et al. (2003) argue how the importance placed on product aesthetic in the formation of purchase intentions depends on the consumer's level of CVPA. However, based on our analysis of CVPA as a moderator, we did not find any significant differences among high and low CVPA respondents.

Furthermore, former literature points at when consumers lack information on utilitarian benefits, aesthetic middle designs increase purchase intentions more than designs that combines high attractiveness with high strength (Giese et al., 2014). Based on the responses in our survey the indications seem to be that neither of the three training jackets followed the aesthetic middle principle. If the latter had a different outcome the CVPA might have showed positive influence on one or more of the three outcome variables.

In line with the findings of Bloch et al. (2003), the three dimensions of value, acumen and response are useful in understanding the construct of CVPA, with significant single factor measures. Nevertheless, none of the dimensions showed an effect on the dependent variables in our research model and might not be that important in terms of product-design related evaluations of sportswear.

6.3 Managerial Implications

The results of our study reveal several implications that should be taken into consideration when marketing managers and product designers develop and promote their sportswear product.

One of the main assumptions for writing this thesis was based on how consumers may place greater importance on the aesthetic appearance of the sportswear than the functionality of it. The results of our study show that the aesthetic dimension was the only dimension that had an effect on the three outcome variables, with a direct effect on brand attitude and an indirect effect on purchase intentions and WOM. Thus, our findings suggest that product designers and marketing managers should keep their main focus on the aesthetic dimension. For instance, they should consider that their designs are both visually appealing and good looking rather than just appearing functional. In addition, the aesthetic dimension also has a direct effect on the functional dimension of product design. Thus, it could be important for marketing managers to promote the product in a way where they emphasize the aesthetic appearance which in turn will make consumers believe that the product performs well, independent of the products actual performance. Hence, designers and marketing managers may increase the chance of product success by offering products that appear visually appealing. However, due to the fact that the respondent did not have the opportunity to interact with the actual product, one might assume that this is the reason for why aesthetics might seem to have a more decisive effect on than the other design dimensions. Based on the latter marketing managers should keep in mind that the functional dimension may still play an important role in the product design of sportswear.

Furthermore, it is important that designers and marketing managers strive to understand the social context in which their products will be used. The results of our study showed direct effect for the social context driver on purchase intention. This dimension suggest that consumers are concerned with what others think of what they are wearing in a training environment. Thus, this may indicate how consumers are interested in, to some extent, matching the outfit of their training partners and/or the people that surrounds them in their training environment. Based in the above-mentioned managers and product designer should focus on creating collections that follows a common thread, and further create sportswear that fits together across different collections. Hence, they should make sportswear that looks good

and at the same time does not stand out too much from the crowd. By following these implications companies may increase consumer's purchase intentions of products and increase the chance of product success.

Finally, our study shows how brand attitude directly influence purchase intentions and WOM. Thus, it is important for brand managers and product designers to focus on building a strong brand image. This implies that companies should sync their product design decisions with the branding decisions. Specifically, this implication suggests that the R&D and marketing departments should work closely together.

6.4 Future Research

Our study considered different measures (Chapter 4) when constructing the research design and testing the hypotheses, in order to ensure the reliability and validity of the results in our study. Although our study provides interesting results regarding the influences of categories of drivers on central outcomes of consumer behavior, more research on the topic should be conducted, which could further contribute to ascertain the result's generalizability. As with any study, our research contains limitations, which can provide a starting point for future research. Such types of studies could consider testing the model on different sportswear products, product categories or on different populations. The research model already has a relatively high explanatory power, however other potential extensions to the model exists.

6.4.1 Research Population

Our research sample consisted of students from the Norwegian School of Economics. Several studies argue how a research samples only consisting of students is not representative of the population in general. This may be due to how student's perceptions may differ from the target population (Agarwal & Karahanna, 2000). For instance, this study's respondents had a higher level of education than the general population (SSB, 2017), which might have an effect on the results in our study. Thus, replication of the study on other sub-population may be interesting. However, the respondent's level of education was controlled for in the analysis and did not show any significant effect on intention. Regarding the age differences of our sample the majority was relatively young. Age was also controlled for in the analysis and has previously been shown to not have an effect on the dependent variable. However, it could be

interesting to look at in future research how a different age group could potentially change the results of this study.

Our study revealed some significant differences between genders on purchase intentions. The gender difference is based on how females have a greater purchase intention of the training jackets than males have. This difference would also be interesting to study more closely in future research to see if it is a remarkable difference and further if it is replicable for other samples and products.

6.4.2 Research Design

Regarding the research design of our study we employed photographs of training jackets as stimuli in the survey. In this way our respondents did not have the opportunity to interact with the actual product, which in turn may have influenced the results. Furthermore, the definition used for product design in our thesis refers to both visual and nonvisual elements of a product. Consumer's perceptions of product design can include product elements that can be either visual or nonvisual, such as touch, feel, smell and trying on the products. Thus, there could be interesting to study responses based on haptic stimuli or actual product interaction with sportswear in future studies.

Moreover, the three training jackets we chose as stimuli in our survey were quite similar in both design and manner. Thus, this may have limited the magnitude of the observed effects. A challenge in empirical studies is to choose the appropriate stimuli. Future research could replicate the study on products with a more differentiated design.

Finally, causal relationships tested in this study are based on theoretical justifications. Even though these justifications have been widely accepted in the product design literature, longitudinal research studies may provide additional insight in observing causality and how product evaluations develop over time.

6.4.3 Theory Development

Our study validates several measures for established latent constructs that are taken from different studies. Additionally, the social context driver of contextual congruent design was introduced, which has an extension of a new set of items. Due to that this set of items have

good construct validity, these measures might be of use in future studies. Nevertheless, four items were dropped from our measurement model and could benefit from further theoretical examination.

First, the item “*This training jacket is visually striking*” measuring the aesthetic design dimension, was deleted due to how it did not satisfy the threshold of 0.5 for the standardized factor loading estimate (Hair et al., 2013). This is likely based on how the wording of this item did not fit well with the product category in question in this research. Thus, we can assume that the jackets used as stimuli in the survey did not fulfill the requirements of what a normal consumer would consider to be “visually striking”. Hence, this item did not load on the same factor as the other items of the aesthetic design dimension.

Furthermore, the symbolic dimension of product design was eliminated from our measurement model. Two of the items (S1 and S3) had standardized factor loading estimates below the threshold of 0.5, while the last item (S2) received a value larger than 1, causing these items to be deleted. The poor scores of the factor loadings for the symbolic constructs may be explained by how a consumer's need for self-expression is not that important when making sportswear judgements based on brand attitude, WOM and purchase intention.

The removal of these four items from the measurement model significantly improved our model fit. While these items have been validated in previous research on other product categories, such as consumer durables (Homburg et al., 2015; Candi et al., 2017). The findings in this thesis may nevertheless suggest that there are differences among product categories that are not fully understood. Thus, we call for further investigation of durable and nondurable consumer goods to see if these findings are transferable.

Moreover, did our new sets of items, social context, proved to be significant. However, as of today our study is the only one that have examined impact of the social context on central outcomes of product design. Due to the latter, this of course would need further research to be able to decide if this finding can be both generalized and replicable for other products and samples.

Finally, the CVPA category of driver did not show any significant effects, neither moderating or direct, on the three outcome variables. Thus, one might consider excluding this category of driver from the model in future studies.

6.4.4 Potential Model Extensions

Regarding further model extensions, it exists several other factors, which is not covered in this thesis, that may be relevant to include in future studies.

Previous research studies have looked at product design through various dimensions. Creusen and Schoormans (2005) identified six different roles of product design for consumers; ergonomic information, attention drawing and categorization in addition to aesthetics, functionality and symbolism. As our model only consists of the dimensions aesthetic, functionality and symbolism, one can imagine how several other design dimensions might have an impact on brand attitude, purchase intention and WOM. Hence, to add more design dimensions to the model would be interesting to explore in future research.

Moreover, there could be interesting to address moderating effects of the categories of drivers on central outcomes of product design in future research studies. CVPA was, as shown earlier, tested as a potential moderator in our study. However, it did not reveal any significant moderating effects. Nevertheless, there might exist other potential interesting moderators to include in the model in future studies. Candi et al. (2017) revealed that the effectiveness of each of the three design dimensions differs depending on the level of product involvement. Previous research has also shown how product involvement have positive effects on brand attitude and purchase intentions. Hence, future research should consider including product involvement as a moderating effect in our research model. This to study if it has any effect on the relationship between the three design dimensions and brand attitude, purchase intention and WOM of sportswear.

6.5 Conclusion

To conclude, the research model developed in this thesis showed good fit and explained a relatively high degree of the variance in the two dependent variables, respectively (66,4 %) of the variance in purchase intention and (37,7%) of the variance in WOM. Thus, one may suggest how this framework could be suitable for future research on the subject. Moreover,

our research model may offer an interesting framework for studies on a broader set of product categories and other customer segments.

The aesthetic appearance of sportswear plays a significant role in determining consumer response. Regarding the first category of driver “product design” our results show how aesthetics is the only driver that has significant effect on purchase intention. However, when a product's form suggests a particular level of functional performance, it can alter consumer judgement, even when more objective written information is provided (Hoegg & Alba, 2011). This could in turn indicate how the aesthetic dimension of product design alone can influence a consumer's opinion about the functional performance of sportswear. The latter is in line with our findings of how aesthetics has a positive influence on functionality.

Fleck and Quester (2007) argues that the core concepts of congruence in marketing is how some things goes together while others simply clash. Further, there is a surprising lack of empirical research or theoretical based frameworks addressing the role of contextually congruent design in consumption settings (Bitner, 1992). In addition to study the contextual congruence of design in a physical context, this study also investigates the contextual congruence of design in a social context, which in fact, turned out to have a significant effect on purchase intention.

Fishbein and Ajzen's (1975) multiattribute model suggest how attitudes can influence our behavioral intentions. This thesis proposes the same, as our result indicates that it is important to stimulate a positive brand attitude toward sportswear due to how it is a significant predictor of customer's purchase intentions and WOM. Failure to understand these influences may lead to an increase in unfavorable consumer responses such as lower purchase intentions and limited WOM.

The results from this study indicate that marketing managers and designers should be particularly aware and focus on the aesthetic appearance of the sportswear they promote and produce. Furthermore, there is a strong link between brand attitude and purchase intention and WOM communication. Thus, marketing managers should strive to build up a positive attitude towards the brand in question. Moreover, the direct positive influence of social context on purchase intention suggests that marketing managers should keep in mind the social context in which their products will be used. Thus, product designers and managers can increase the

chance of purchase by offering products that are aesthetically appealing and fits with the social context.

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Appendix

Appendix A: Table Previous Research on Product Design

Author(s)	Dimension(s)	Product (s)	Mechanism(s)	Effect(s)	Empirical Research
Homburg et al., (2015)	Aesthetic Functional Symbolic	Multimedia and Household products	Perceived value	Purchase Intentions WOM WTP	Yes
Bloch (1995)	Product form	-	Psychological responses	Behavioral responses	No
Noble & Kumar (2008)	Utilitarian design Kinesthetic design Visual design	Multimedia and Household products Cars	Functional differentiation Emotional Value creation	Transactional outcomes Relational outcomes	Yes
Creusen & Schoormans (2005)	Aesthetic Functional Symbolic Ergonomic Attention drawing Categorization	Multimedia and Household products	Perceived value	Product choice	Yes
Candi et al., (2017)	Aesthetic Functional Symbolic	Mugs and Watches	Perceived value	Behavioral responses	Yes
Chitturi et al., (2008)	Hedonic Utilitarian	Cell Phones	Psychological responses	Word of mouth Repurchase intentions	Yes
Luchs and Swan (2011)	Product form	-	Physiological responses	Behavioral responses	No
Nobel and Kumar (2010) ¹	Aesthetics Features Graphics Design principles Design metaphors Functionality Product platform Trade dress Trademark features	Multimedia and Households products Car Yoghurt Container Segway	Design value	Consumer responses	Yes
Mishra (2016)	Visual Functional Kinesthetic Interface Information design	Smartphones	Perceived value	Brand equity	Yes

¹ Noble & Kumar (2010) consider the dimensions as design levers

Appendix B: Stimuli

Photographs of the Training Jackets



1. Orange Jacket



2. Light Blue Jacket



3. Blue Jacket

Appendix C: Survey

NHH



Hi!

This survey is conducted as a part of our master's thesis at the Norwegian School of Economics (NHH), and takes about 5 minutes to complete. We greatly appreciate your participation – your response is valuable to us!

In this survey you are going to answer some questions regarding a training jacket and about products in general. Some of the questions may appear quite similar. It is supposed to be that way – and is due to methodological considerations. Keep in mind that there is no "right" answer to any of the questions. We are only looking for your honest evaluation. On the last page of the survey, we will ask you about your age, gender and education. Please make contact, if you experience technical issues during the survey.

It is important that you read the questions thoroughly and that you answer them as sincerely and honest as possible. When you move on to the next page in the questionnaire, you will not be able to go back to the previous page and make changes.

All answers are completely anonymous and any information you provide will be treated confidentially. It is voluntary to participate in the survey and you can withdraw from the survey at any time without giving a reason for doing so. If you withdraw, all information about you will be anonymized.

If you confirm that you have read all the information above and further consent to participate in this survey voluntarily, click "Yes" and continue to the next page of the survey.

- Yes
- No



Imagine you are going to buy a training jacket. You decide to go to a store and look for a training jacket. When you are in the store a sales person recommends the training jacket photographed below.



Please respond to the following statements about **this training jacket** as precisely as possible.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
This training jacket is visually striking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This training jacket is good looking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This training jacket looks appealing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

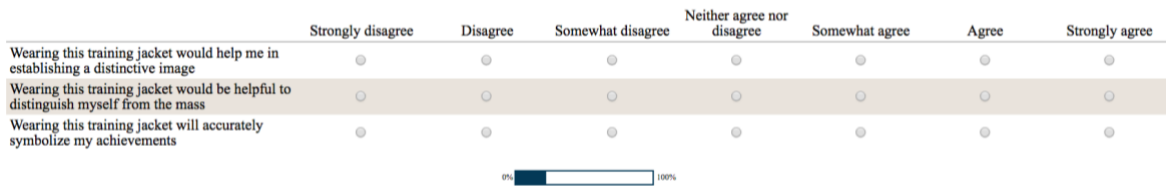


Please respond to the following statements about **this training jacket** as precisely as possible.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
This training jacket is likely to perform well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This training jacket seems capable of doing its job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This training jacket seems to be functional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

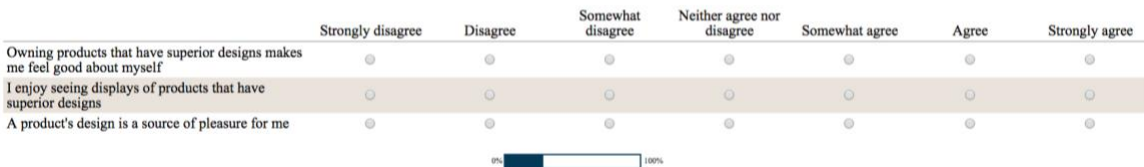


Please respond to the following statements about **this training jacket** as precisely as possible.

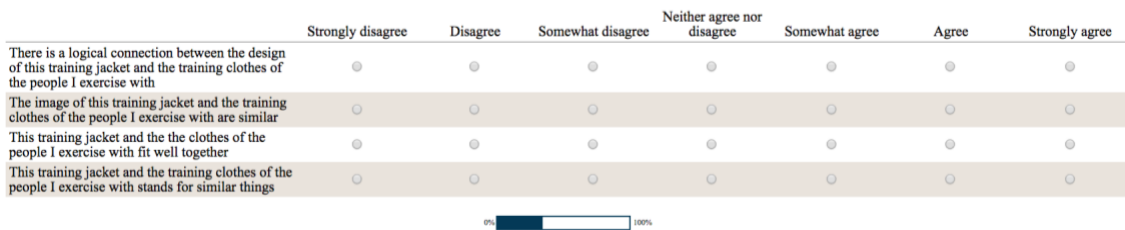


This page concerns the appearance of products in general and not the specific training jacket mentioned before.

Please respond to the following statements as precisely as possible regarding **the appearance of products in general**.

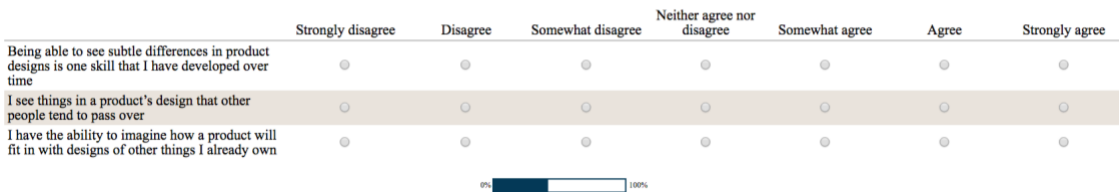


Please respond to the following statements about **this training jacket** as precisely as possible.

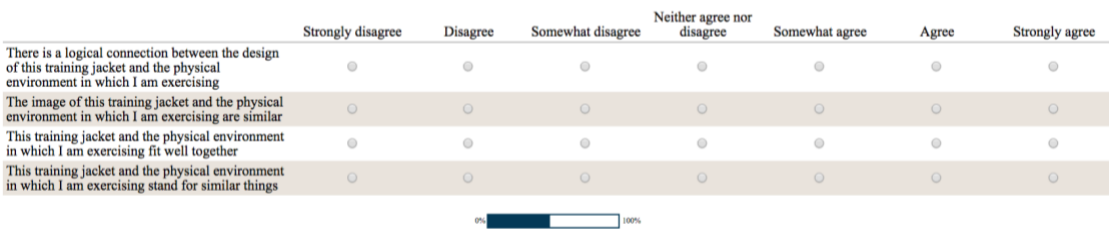


This page concerns the appearance of products in general and not the specific training jacket mentioned before.

Please respond to the following statements as precisely as possible regarding **the appearance of products in general**.

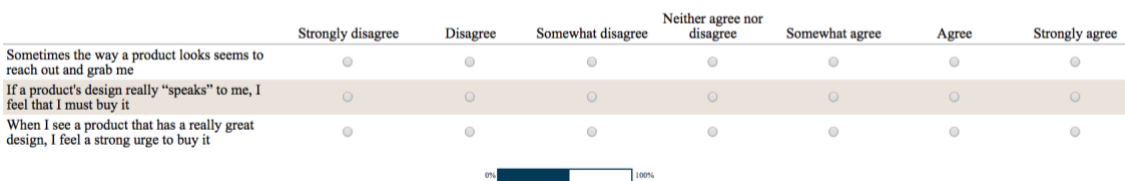


Please respond to the following statements about **this training jacket** as precisely as possible.



This page concerns the appearance of products in general and not the specific training jacket mentioned before.

Please respond to the following statements as precisely as possible regarding **the appearance of products in general**.



Overall, how will you rate **this training jacket** along the following description.

	1 Bad	2	3	4	5	6	7 Good
My attitude to this training jacket is	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	1 Unfavorable	2	3	4	5	6	7 Favorable
My attitude to this training jacket is	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	1 Negative	2	3	4	5	6	7 Positive
My attitude to this training jacket is	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Please respond to the following statement about **this training jacket** as precisely as possible.

	1 Definitely would not buy	2	3	4	5	6	7 Definitely would buy
How do you feel about buying this training jacket in the near future?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	1 Never	2	3	4	5	6	7 Within the next three months
When would you be most willing to buy this training jacket?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Please respond to the following statements about **this training jacket** as precisely as possible.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I would tell other people about this training jacket	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recommend that other people buy this training jacket	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



This is the last page of the questionnaire. Please help us answer some final question regarding **demographics** to finish this questionnaire.

Gender

- Female
- Male

Age

Education

- Elementary School
- High School
- 1-3 year(s) higher education
- 4 years higher education or more



We thank you for your time spent taking this survey.
Your response has been recorded.



Appendix D: Adapted Measures

Construct	Source
Product design	Homburg et al., 2015
<i>Aesthetic</i>	This training jacket is visually striking This training jacket is good looking This training jacket looks appealing
<i>Functional</i>	This training jacket is likely to perform well This training jacket seems capable of doing its job This training jacket seems to be functional
<i>Symbolism²</i>	This training jacket would help me in establishing a distinctive image This product would be helpful to distinguish myself from the mass The product would accurately symbolize my achievements
Contextually congruent design	Speed & Thompson, 2000
<i>Social Context</i>	There is a logical connection between the design of this training jacket and the training clothes of the people I exercise with The image of this training jacket and the training clothes of the people I exercise with are similar helpful to distinguish myself from the mass. This training jacket and the clothes of the people I exercise with fit well together This training jacket and the training clothes of the people I exercise with stands for similar things
<i>Physical Context</i>	There is a logical connection between the design of this training jacket and the physical environment in which I am exercising The image of this training jacket and the physical environment in which I am exercising are similar This training jacket and the physical environment in which I am exercising fit well together This training jacket and the physical environment in which I am exercising stand for similar things
CVPA	Bloch et al., 2003
<i>Value</i>	Owning products that have superior designs makes me feel good about myself I enjoy seeing displays of products that have superior designs A product's design is a source of pleasure for me
<i>Acumen</i>	Being able to see subtle differences in product designs is one skill that I have developed over time I see things in a product's design that other people tend to pass over I have the ability to imagine how a product will fit in with designs of other things I already own
<i>Response</i>	Sometimes the way a product looks seems to reach out and grab me If a product's design really "speaks" to me, I feel that I must buy it When I see a product that has a really great design, I feel a strong urge to buy it
Brand Attitude	Nysveen et al., 2005
	<i>Overall, how will you rate this training jacket along the following description</i> Bad/good Unfavorable/favorable Negative/positive
Purchase Intentions	Homburg et al., 2015
	How do you feel about buying this training jacket in the near future? When would you be most willing to buy this training jacket?
WOM	Chitturi et al., 2008
	I would tell other people about this training jacket
WOM	Cheema & Kaikati, 2010
	I would recommend that other people buy this training jacket

¹ Item dropped from the scale

² Construct dropped from the scale

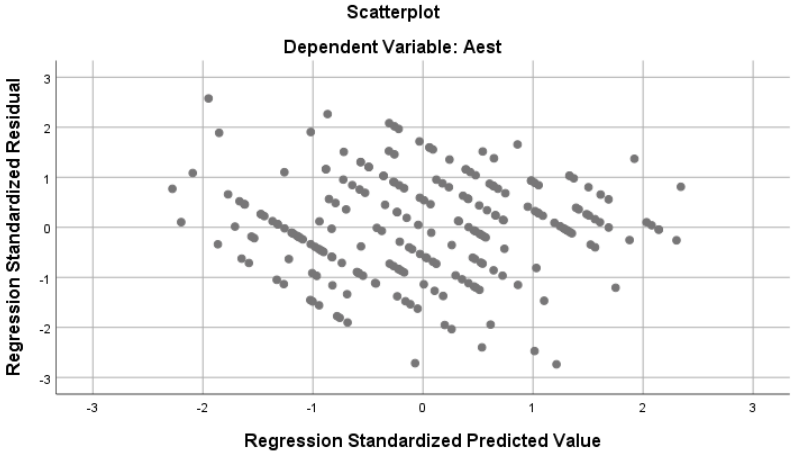
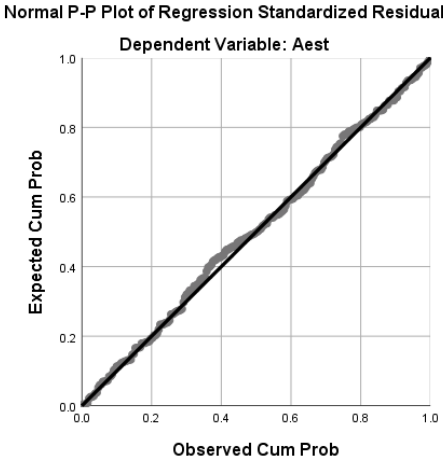
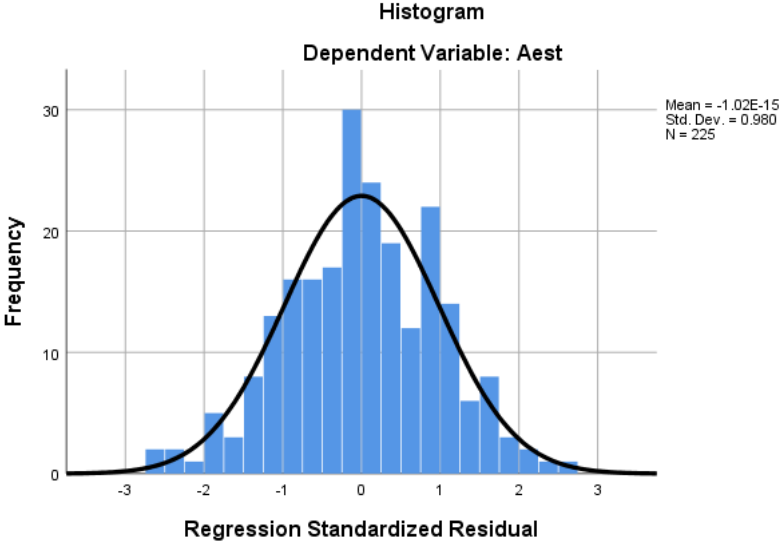
Appendix E: Indicators of Normality

	Shapiro-Wilk		
	Statistic	df	Sig.
Aest	.953	225	.000
Func	.950	225	.000
CVPAV	.910	225	.000
CVPAA	.979	225	.002
CVPAR	.957	225	.000
CCDS	.984	225	.012
CCDP	.962	225	.000
Att	.977	225	.001
PI	.890	225	.000
WOM	.896	225	.000

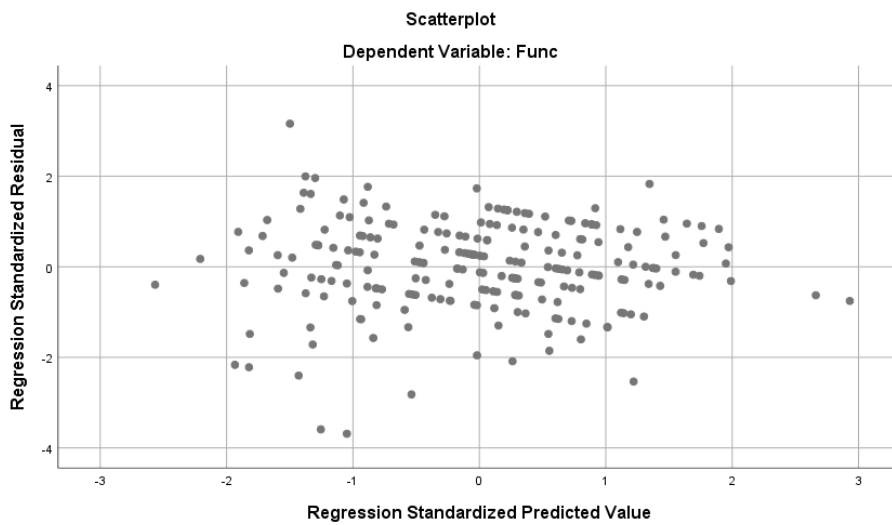
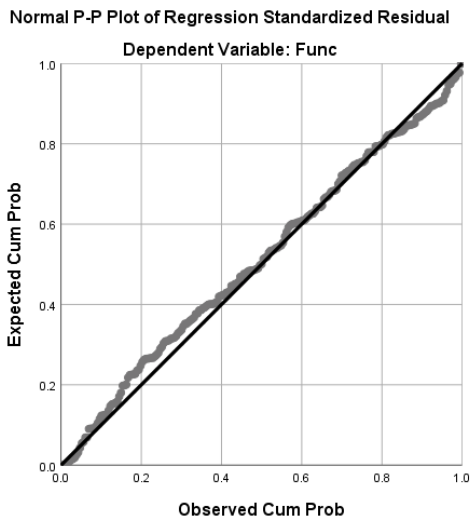
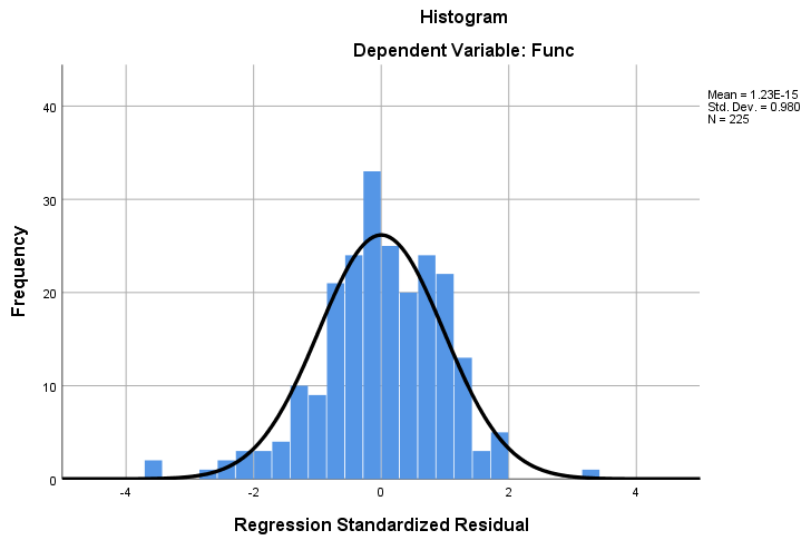
	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Aesthetics	225	3.51	1.47030	.092	.162	-1.023	.323
Functionality	225	4.78	.98139	-.837	.162	1.582	.323
CVPA value	225	5.18	.98802	-1.186	.162	1.978	.323
CVPA acumen	225	4.24	1.25888	-.311	.162	-.170	.323
CVPA response	225	4.73	1.13359	-.674	.162	.102	.323
CCD social context	225	3.60	1.13485	-.148	.162	-.369	.323
CCD physical context	225	3.72	1.18479	-.376	.162	-.352	.323
Brand attitude	225	3.46	1.20193	.128	.162	-.314	.323
Purchase intention	225	2.23	1.16784	.769	.162	-.094	.323
WOM	225	2.27	1.06587	.579	.162	-.554	.323

Appendix F: Histograms, Q-Q and Scatter plots

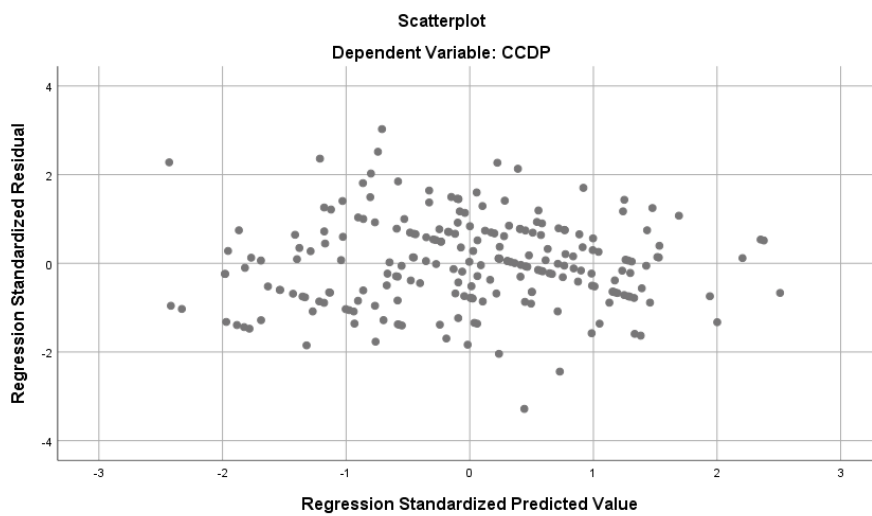
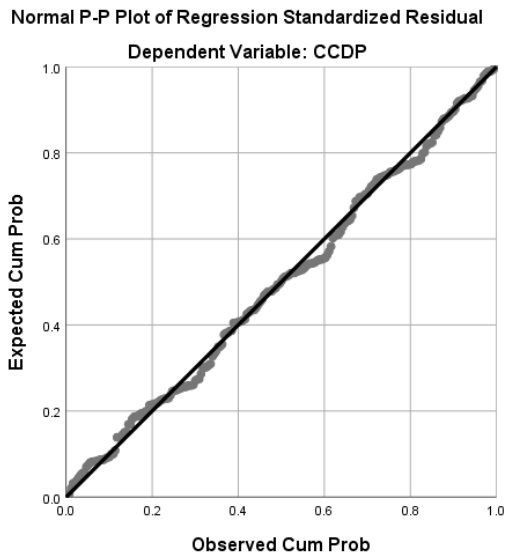
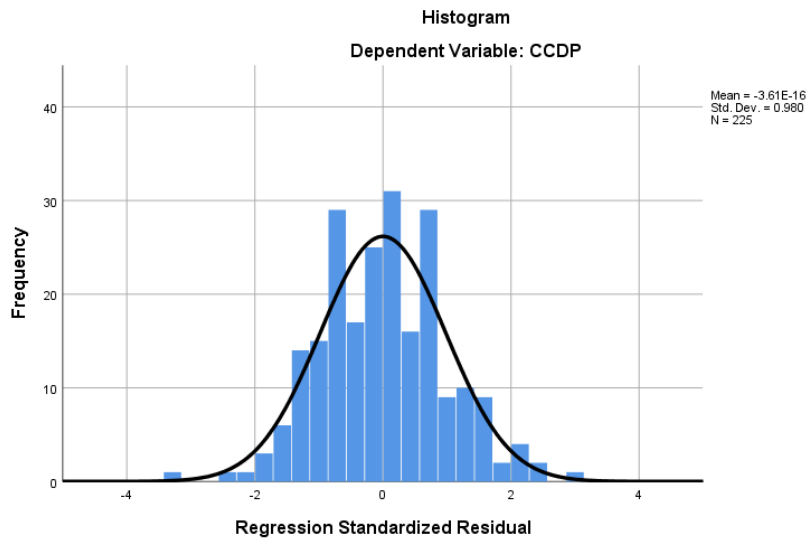
Aesthetics



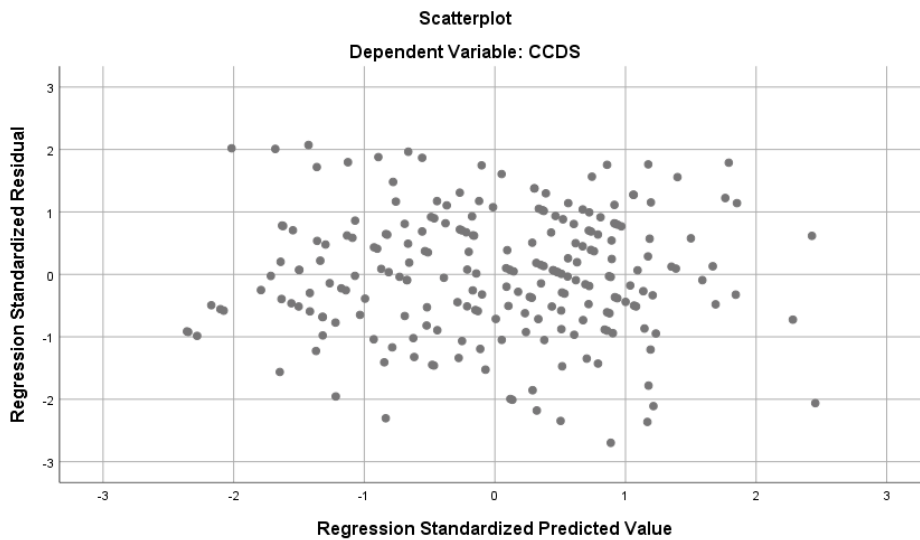
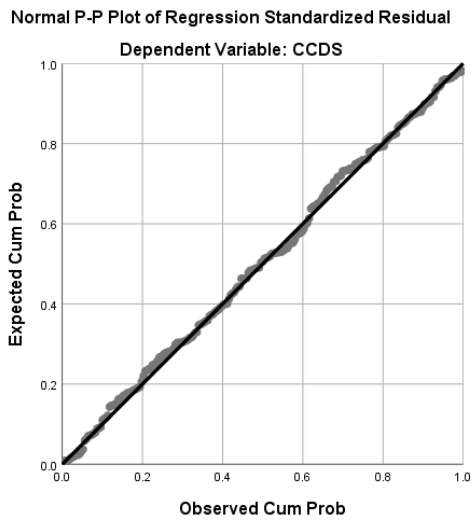
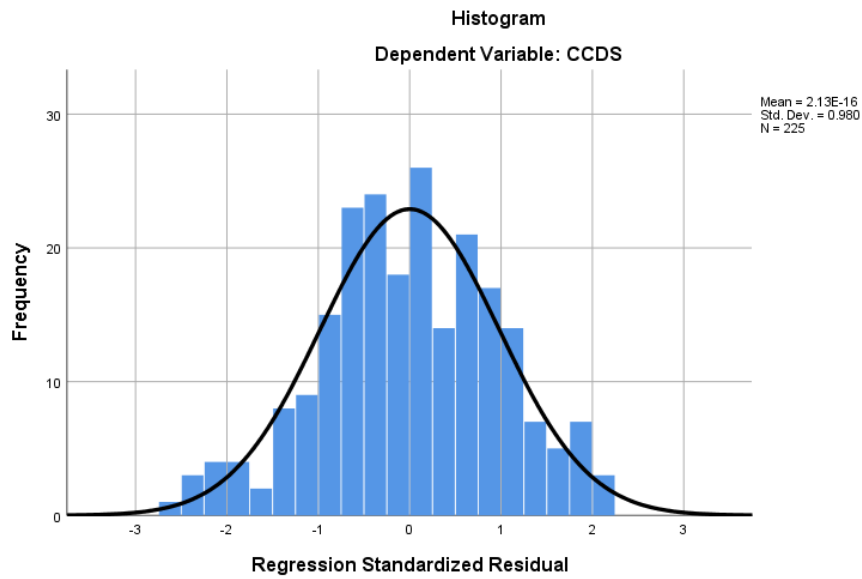
Functionality



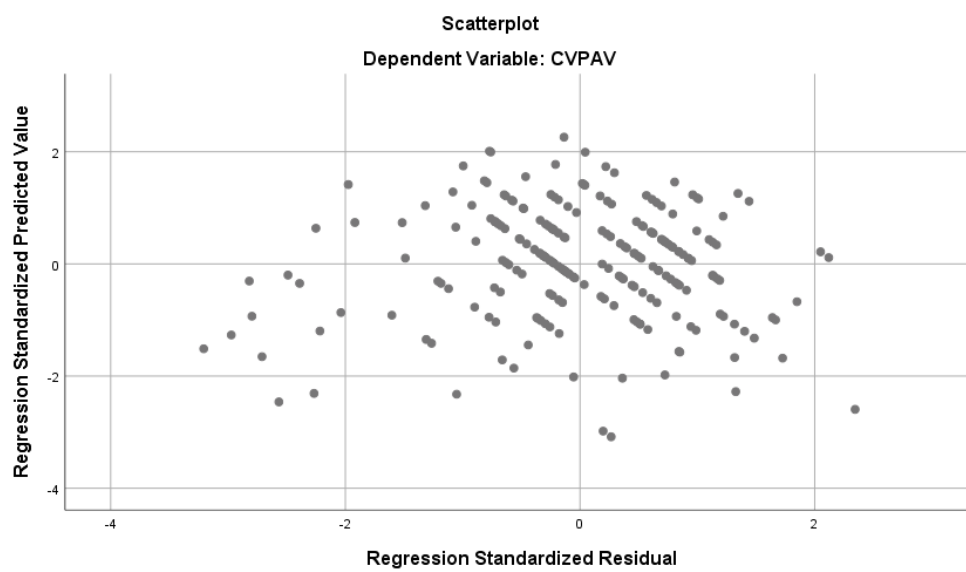
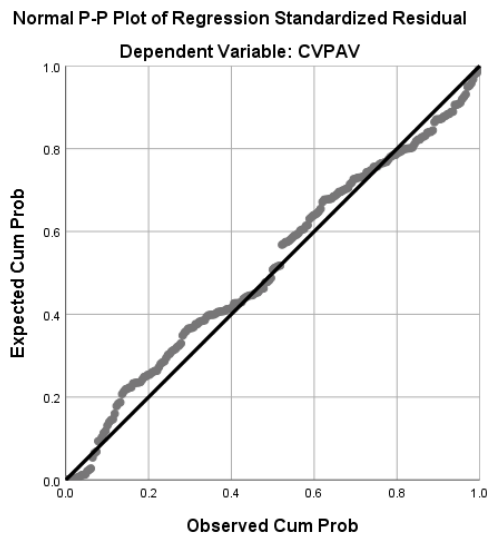
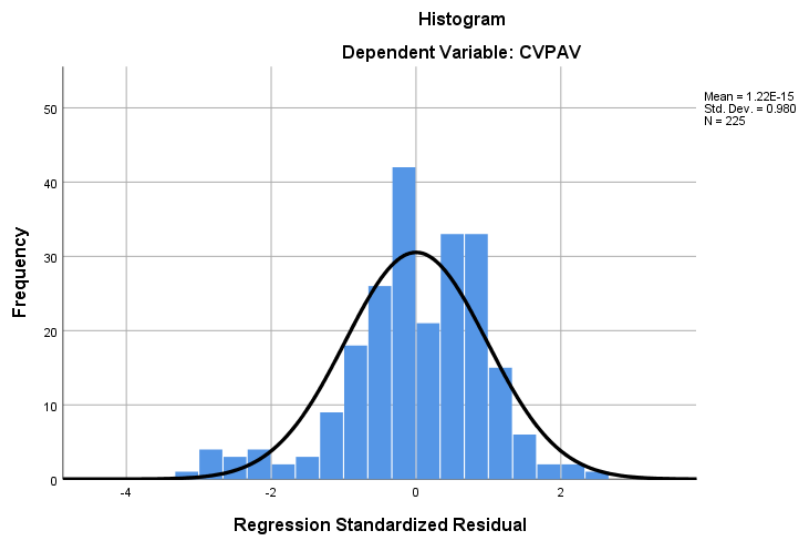
Physical Context



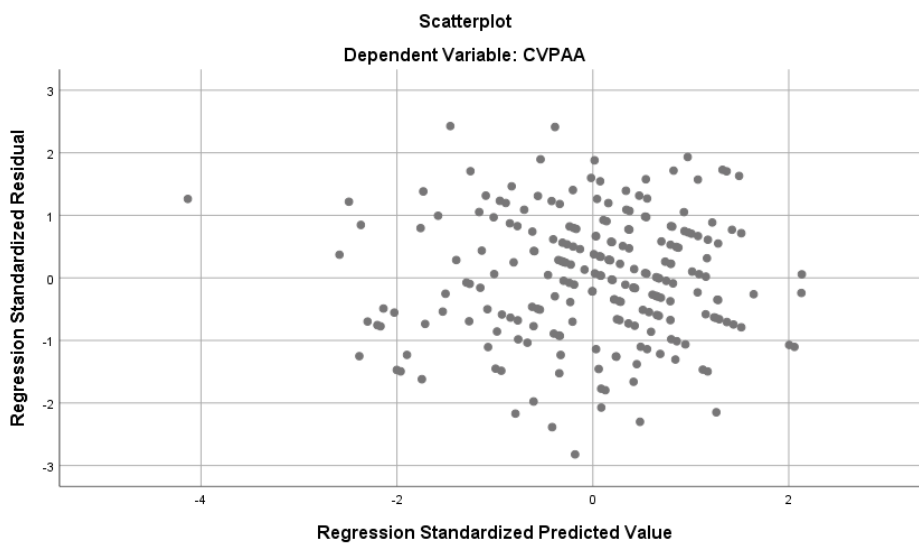
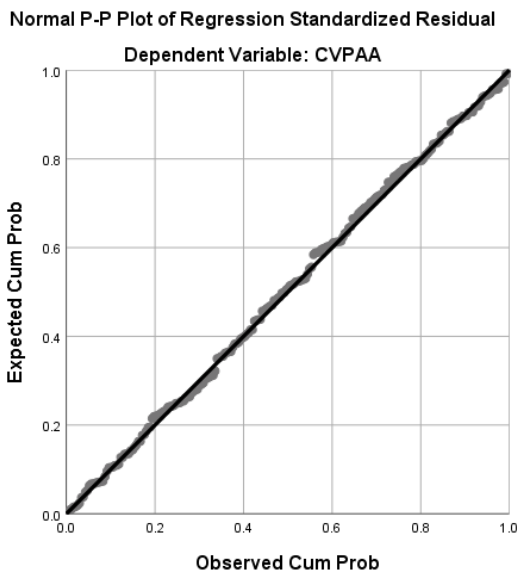
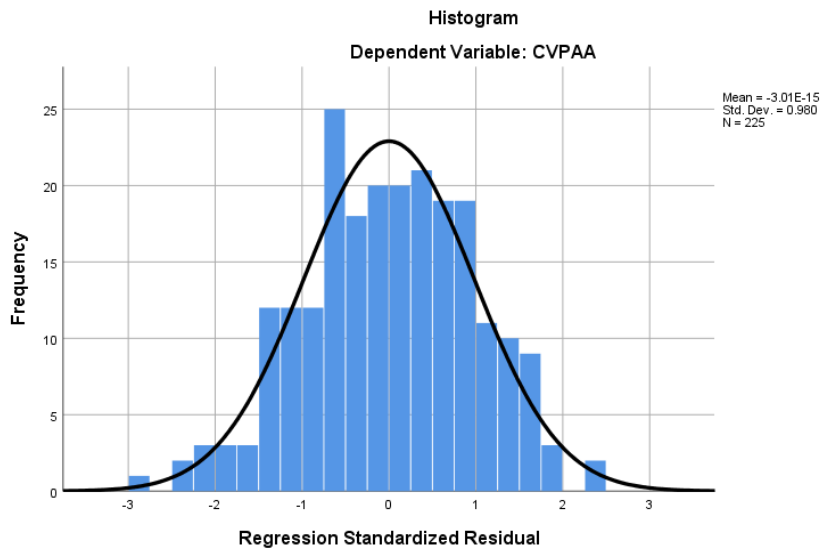
Social Context



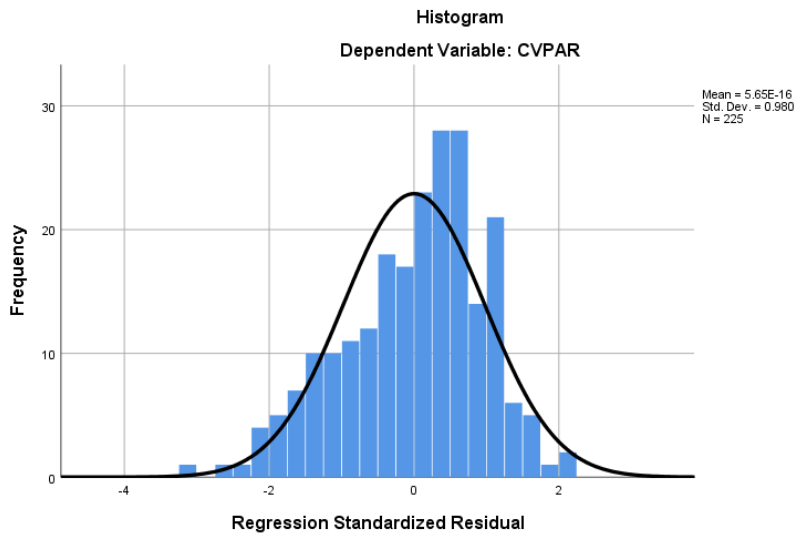
Value



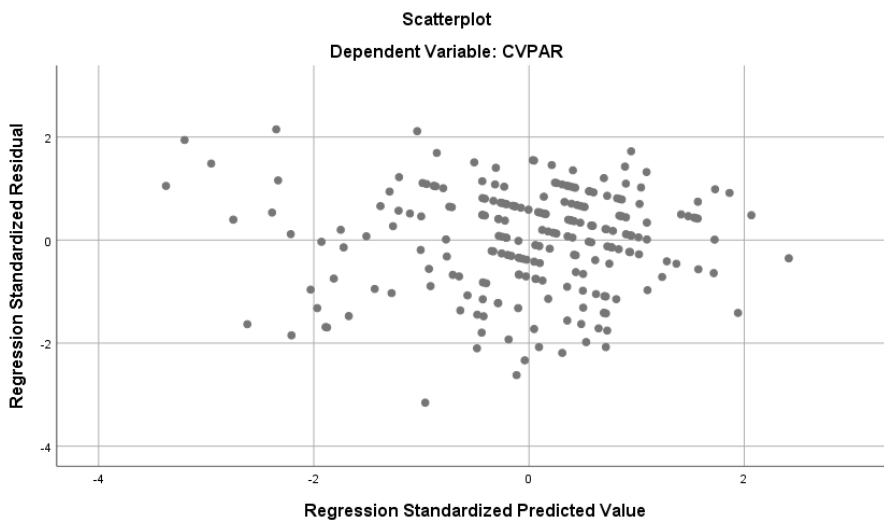
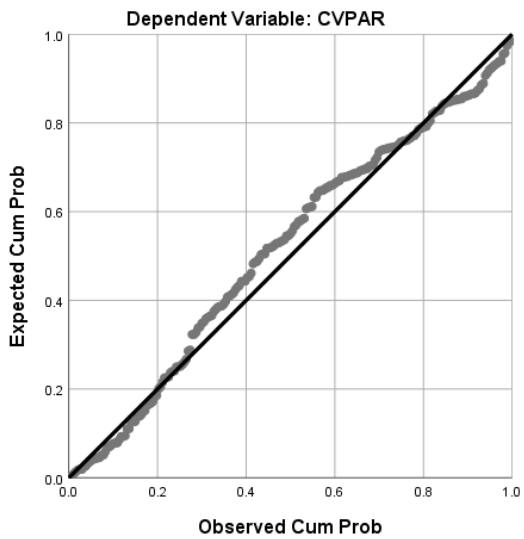
Acumen



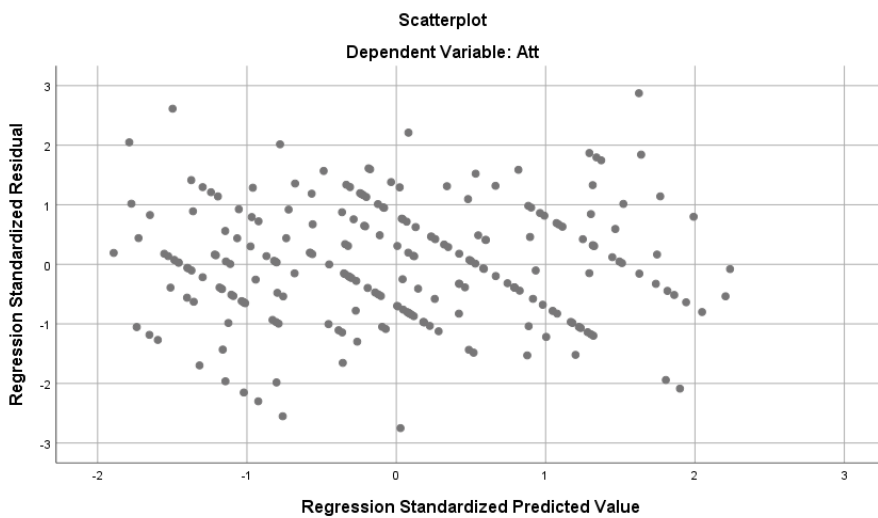
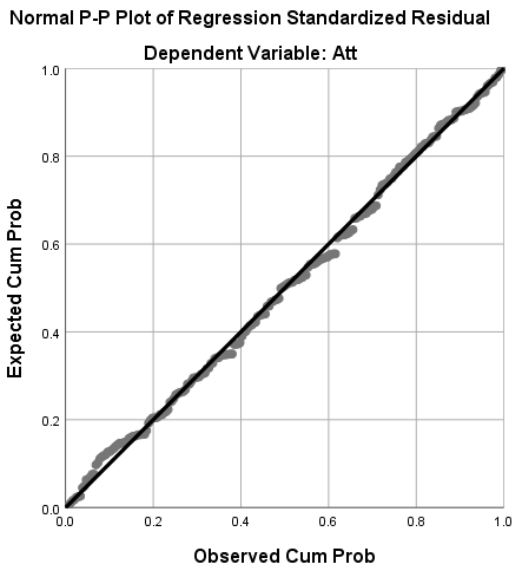
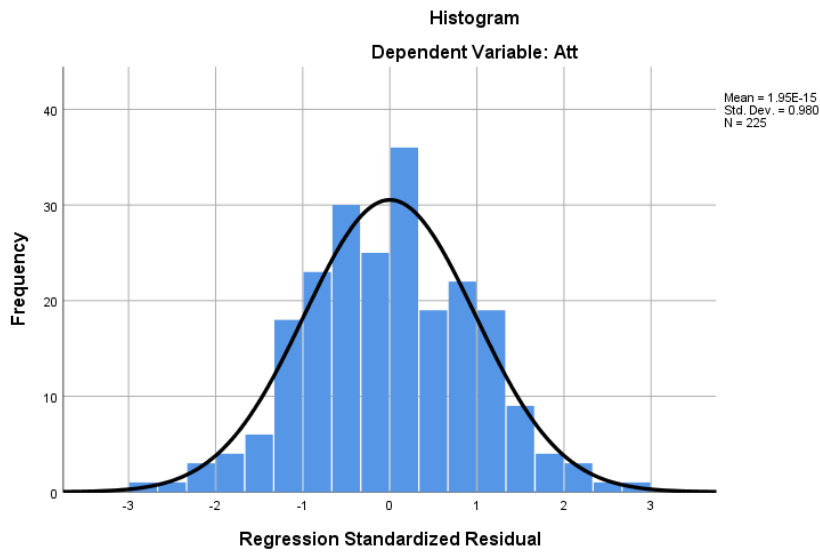
Response



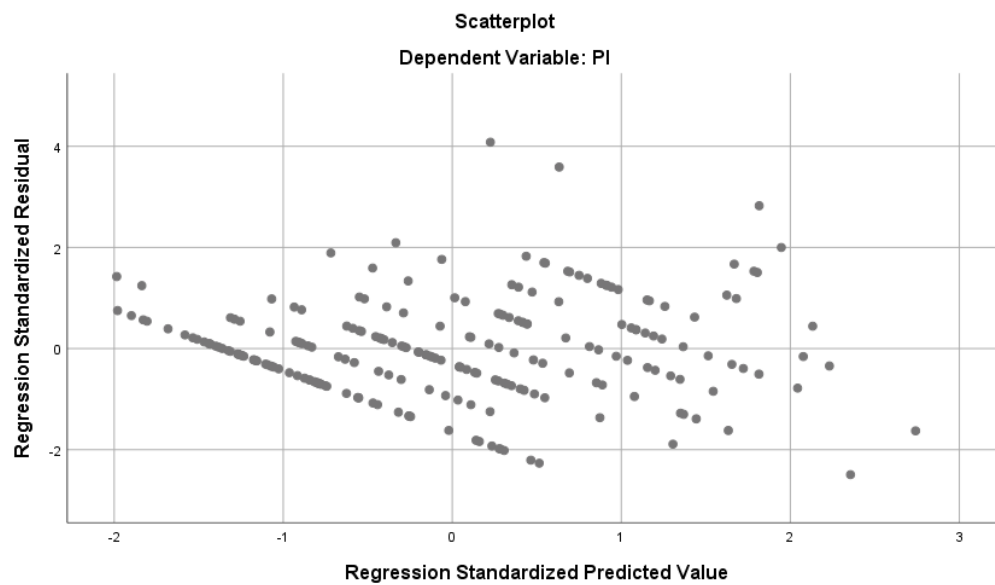
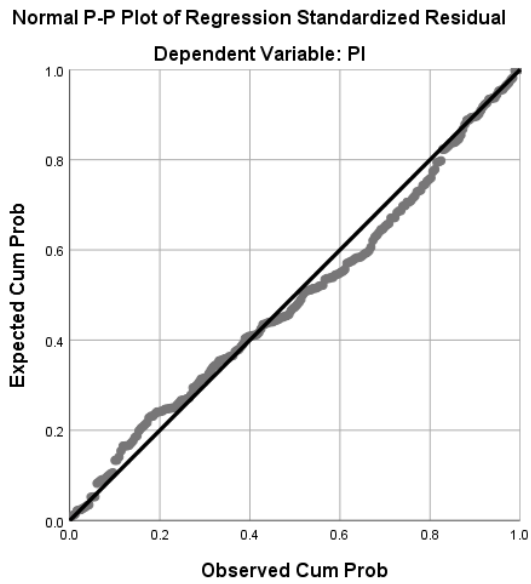
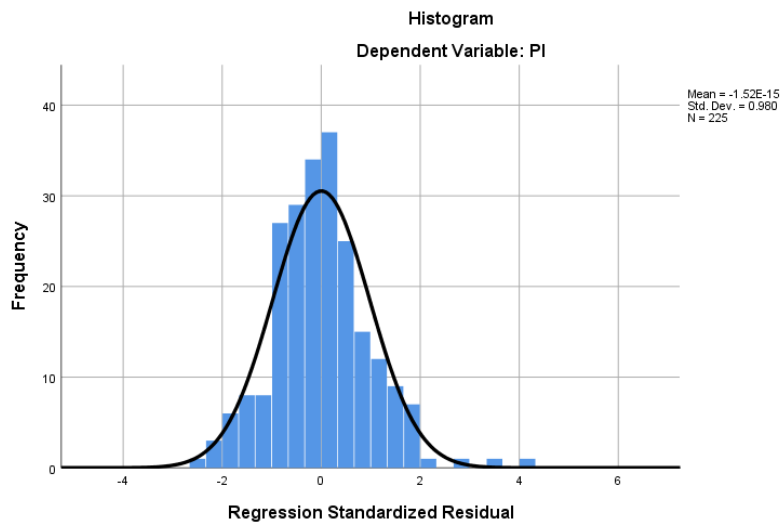
Normal P-P Plot of Regression Standardized Residual



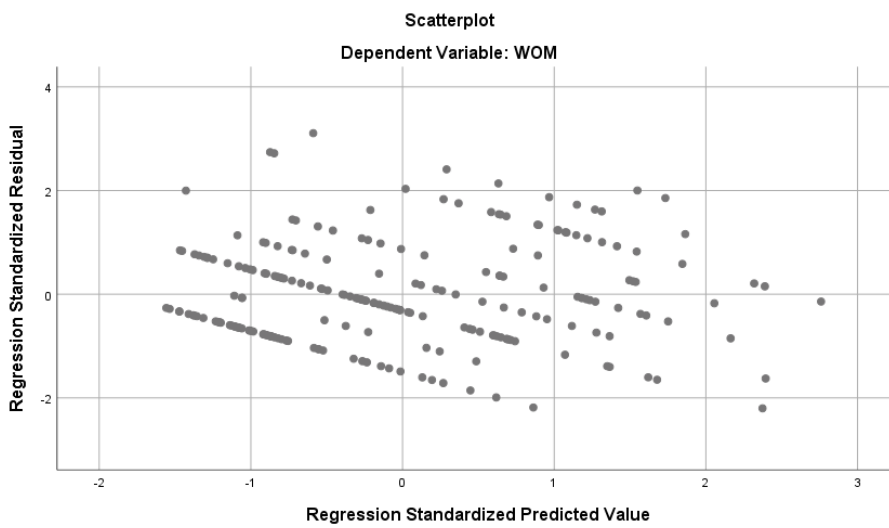
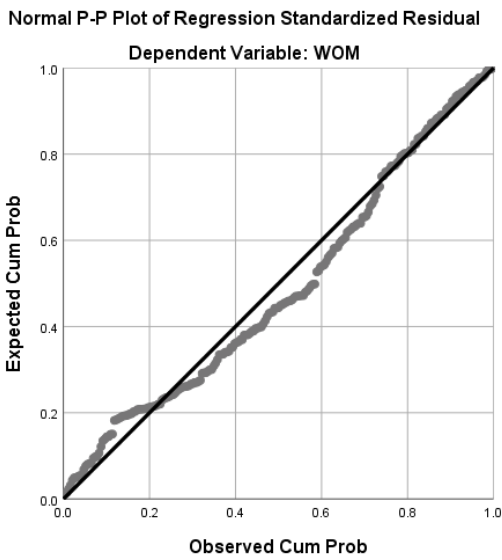
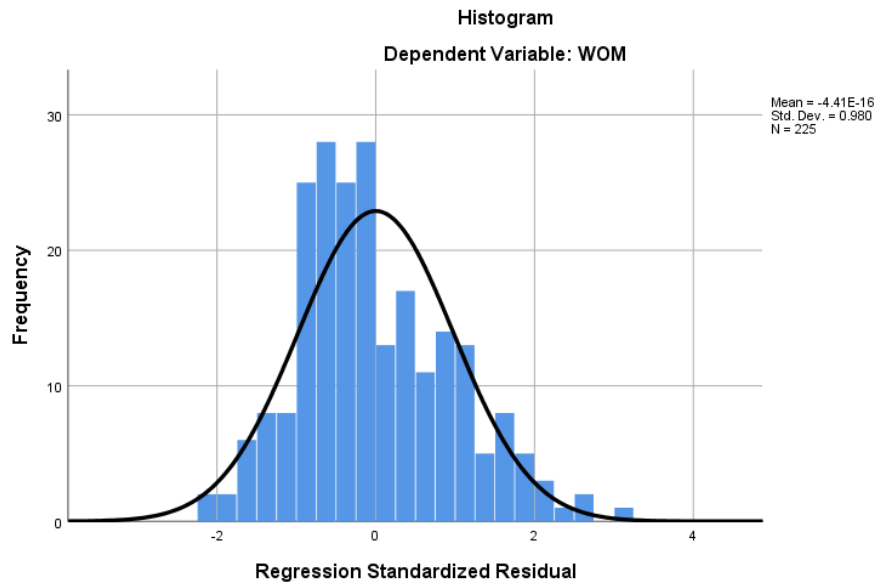
Attitude



Purchase Intention



Word of Mouth



Appendix G: Durbin Watson, tolerance and VIF test

Purchase Intention

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.735 ^a	.541	.524	.80610	1.929

a. Predictors: (Constant), Att, CVPAR, CVPAA, Func, CCDP, CVPAV, CCDS, Aest

b. Dependent Variable: PI

Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	Aest	.361	2.774
	Func	.816	1.225
	CVPAV	.683	1.463
	CVPAA	.762	1.313
	CVPAR	.784	1.276
	CCDS	.551	1.813
	CCDP	.593	1.687
	Att	.359	2.787

a. Dependent Variable: PI

Word of Mouth

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.547 ^a	.300	.274	.90839	2.018

a. Predictors: (Constant), Att, CVPAR, CVPAA, Func, CCDP, CVPAV, CCDS, Aest

b. Dependent Variable: WOM

Coefficients^a

		Collinearity Statistics	
Model		Tolerance	VIF
1	Aest	.361	2.774
	Func	.816	1.225
	CVPAV	.683	1.463
	CVPAA	.762	1.313
	CVPAR	.784	1.276
	CCDS	.551	1.813
	CCDP	.593	1.687
	Att	.359	2.787

a. Dependent Variable: WOM

Appendix H: Goodness-of-Fit Results

Measurement Model Fit

Chi-Square Test of Model Fit

Value	452.822
Degrees of Freedom	332
P-Value	0.0000

RMSEA (Root Mean Square Error of Approximation)

Estimate	0.040
90 Percent C.I.	0.030 0.049
Probability RMSEA <= .05	0.966

CFI/TLI

CFI	0.974
TLI	0.968

Chi-Square Test of Model Fit for the Baseline Model

Value	4969.372
Degrees of Freedom	406
P-Value	0.0000

SRMR (Standardized Root Mean Square Residual)

Value	0.040
-------	-------

Structural Model Fit Purchase Intention

Chi-Square Test of Model Fit

Value	396.195
Degrees of Freedom	288
P-Value	0.0000

RMSEA (Root Mean Square Error of Approximation)

Estimate	0.041
90 Percent C.I.	0.030 0.050
Probability RMSEA <= .05	0.945

CFI/TLI

CFI	0.975
TLI	0.969

Chi-Square Test of Model Fit for the Baseline Model

Value	4612.228
Degrees of Freedom	351
P-Value	0.0000

SRMR (Standardized Root Mean Square Residual)

Value	0.041
-------	-------

Structural Model Fit Word of Mouth

Chi-Square Test of Model Fit

Value	406.512
Degrees of Freedom	288
P-Value	0.0000

RMSEA (Root Mean Square Error of Approximation)

Estimate	0.043
90 Percent C.I.	0.033 0.052
Probability RMSEA <= .05	0.899

CFI/TLI

CFI	0.972
TLI	0.965

Chi-Square Test of Model Fit for the Baseline Model

Value	4527.190
Degrees of Freedom	351
P-Value	0.0000

SRMR (Standardized Root Mean Square Residual)

Value	0.040
-------	-------

Appendix I: Factor Loadings

Measurement Model

Chi-Square Test of Model Fit

Value	452.822
Degrees of Freedom	332
P-Value	0.0000

		Two-Tailed			
		Estimate	S.E.	Est./S.E.	P-Value
AEST	BY				
Q6_2		0.924	0.016	58.646	0.000
Q6_3		0.946	0.014	65.264	0.000
FUNC	BY				
Q8_1		0.656	0.042	15.600	0.000
Q8_2		0.942	0.025	37.780	0.000
Q8_3		0.846	0.028	29.944	0.000
CCDS	BY				
Q14_1		0.738	0.035	21.302	0.000
Q14_2		0.840	0.025	34.145	0.000
Q14_3		0.902	0.019	47.493	0.000
Q14_4		0.786	0.029	26.666	0.000
CCDP	BY				
Q18_1		0.851	0.022	39.509	0.000
Q18_2		0.888	0.018	49.980	0.000
Q18_3		0.914	0.015	60.155	0.000
Q18_4		0.845	0.022	38.438	0.000
CVPAV	BY				
Q12_1		0.656	0.047	14.023	0.000
Q12_2		0.739	0.042	17.562	0.000
Q12_3		0.823	0.037	22.085	0.000
CVPAA	BY				
Q16_1		0.843	0.034	24.722	0.000
Q16_2		0.815	0.035	23.195	0.000
Q16_3		0.609	0.049	12.306	0.000
CVPAR	BY				
Q20_1		0.590	0.051	11.629	0.000
Q20_2		0.815	0.036	22.615	0.000
Q20_3		0.876	0.034	25.437	0.000
PI	BY				
Q30_1		0.883	0.024	36.512	0.000

Q36_1	0.844	0.027	31.726	0.000
WOM	BY			
Q27_1	0.891	0.032	27.932	0.000
Q27_2	0.838	0.034	25.013	0.000
ATT	BY			
Q33_1	0.937	0.010	89.757	0.000
Q24_1	0.943	0.010	94.379	0.000
Q25_1	0.930	0.011	83.443	0.000

Appendix J: Harman's one factor test

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	8.944	30.842	30.842	8.383	28.908	28.908	5.544
2	4.068	14.026	44.868	1.883	6.494	35.402	3.403
3	2.502	8.626	53.494	2.883	9.941	45.343	5.204
4	1.927	6.646	60.141	2.874	9.911	55.254	2.754
5	1.568	5.406	65.546	1.111	3.832	59.086	5.421
6	1.305	4.500	70.047	1.136	3.919	63.005	4.044
7	1.147	3.954	74.001	.977	3.369	66.374	2.909
8	1.042	3.594	77.595	.456	1.572	67.946	5.009
9	.640	2.206	79.801				
10	.601	2.072	81.873				
11	.561	1.934	83.808				
12	.507	1.747	85.555				
13	.458	1.580	87.135				
14	.437	1.506	88.641				
15	.386	1.331	89.972				
16	.362	1.248	91.221				
17	.329	1.133	92.354				
18	.287	.991	93.344				
19	.268	.926	94.270				
20	.250	.863	95.133				
21	.233	.804	95.937				
22	.207	.713	96.650				
23	.204	.704	97.353				
24	.189	.651	98.004				
25	.145	.500	98.504				
26	.138	.476	98.979				
27	.108	.371	99.351				
28	.095	.327	99.678				
29	.093	.322	100.000				

Extraction Method: Maximum Likelihood.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Appendix K: Effects of Control Variables

Purchase Intention

		Two-Tailed		
	Estimate	S.E.	Est./S.E.	P-Value
PI	ON			
Gender	0.097	0.049	1.989	0.047
Age	0.056	0.054	1.040	0.298
Education	-0.018	0.052	-0.345	0.730

Word of Mouth

		Two-Tailed		
	Estimate	S.E.	Est./S.E.	P-Value
WOM	ON			
Gender	0.070	0.062	1.133	0.257
Age	0.019	0.069	0.280	0.780
Education	-0.006	0.068	-0.094	0.925

Appendix L: Structural Models Results

Purchase Intention

STDYX Standardization

	Estimate	S.E.	Two-Tailed Est./S.E	P-Value
FUNC ON				
AEST	0.394	0.062	6.326	0.000
ATT ON				
AEST	0.746	0.046	16.219	0.000
FUNC	0.055	0.049	1.125	0.260
CCDS	0.038	0.070	0.542	0.588
CCDP	0.090	0.063	1.419	0.156
CVPAV	0.031	0.073	0.424	0.672
CVPAA	-0.058	0.062	-0.931	0.352
CVPAR	-0.033	0.056	-0.584	0.559
PI ON				
AEST	0.107	0.106	1.017	0.309
FUNC	-0.056	0.058	-0.970	0.332
CCDS	0.226	0.082	2.748	0.006
CCDP	-0.039	0.075	-0.525	0.600
CVPAV	-0.122	0.086	-1.418	0.156
CVPAA	-0.104	0.073	-1.423	0.155
CVPAR	0.111	0.068	1.625	0.104
ATT	0.602	0.099	6.068	0.000
R-SQUARE				
Latent			Two-Tailed	
Variable	Estimate	S.E.	Est./S.E.	P-Value
ATT	0.706	0.039	17.983	0.000
PI	0.664	0.050	13.199	0.000

Word of Mouth

STDYX Standardization

	Estimate	S.E.	Two-Tailed Est./S.E	P-Value
FUNC ON				
AEST	0.393	0.062	6.316	0.000
ATT ON				
AEST	0.745	0.046	16.170	0.000
FUNC	0.054	0.049	1.111	0.266
CCDS	0.038	0.071	0.537	0.591
CCDP	0.090	0.063	1.428	0.153
CVPAV	0.032	0.073	0.436	0.663
CVPA	-0.057	0.062	-0.921	0.357
CVPAR	-0.033	0.056	-0.583	0.560
WOM ON				
AEST	-0.040	0.130	-0.307	0.759
FUNC	-0.021	0.072	-0.294	0.769
CCDS	0.083	0.102	0.820	0.412
CCDP	0.051	0.093	0.555	0.579
CVPAV	-0.160	0.108	-1.483	0.138
CVPA	0.035	0.091	0.379	0.704
CVPAR	0.130	0.085	1.523	0.128
ATT	0.592	0.122	4.868	0.000

R-SQUARE

Latent Variable	Estimate	S.E.	Two-Tailed Est./S.E.	P-Value
ATT	0.705	0.039	6.158	0.000
WOM	0.377	0.061	17.878	0.000

Appendix M: Moderating Effect of CVPA

High CVPA on Attitude

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,813 ^a	,662	,641	,73603

a. Predictors: (Constant), CVPAR, Func, CVPAA, CVPAV, CCDS, Aest, CCDP

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	123,900	7	17,700	32,672	,000 ^b
	Residual	63,384	117	,542		
	Total	187,284	124			

a. Dependent Variable: Att

b. Predictors: (Constant), CVPAR, Func, CVPAA, CVPAV, CCDS, Aest, CCDP

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,182	,908		1,302	,195
	Aest	,566	,053	,697	10,682	,000
	Func	,120	,071	,101	1,691	,094
	CCDS	,068	,083	,062	,821	,413
	CCDP	,066	,074	,063	,884	,378
	CVPAV	,019	,113	,009	,166	,869
	CVPAA	-,093	,080	-,065	-1,160	,248
	CVPAR	-,086	,095	-,050	-,902	,369

a. Dependent Variable: Att

High CVPA on Purchase Intention

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,667 ^a	,445	,411	,88672

a. Predictors: (Constant), CVPAR, Func, CVPAA, CVPAV, CCDS, Aest, CCDP

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	73,618	7	10,517	13,376	,000 ^b
	Residual	91,994	117	,786		
	Total	165,612	124			

a. Dependent Variable: PI

b. Predictors: (Constant), CVPAR, Func, CVPAA, CVPAV, CCDS, Aest, CCDP

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,543	1,093		,496	,621
	Aest	,416	,064	,544	6,511	,000
	Func	,030	,086	,027	,355	,723
	CCDS	,116	,100	,112	1,156	,250
	CCDP	,081	,089	,083	,904	,368
	CVPAV	-,067	,136	-,035	-,493	,623
	CVPAA	-,054	,096	-,040	-,559	,577
	CVPAR	-,018	,115	-,011	-,157	,876

a. Dependent Variable: PI

High CVPA on WOM

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,489 ^a	,239	,194	,96343

a. Predictors: (Constant), CVPAR, Func, CVPAA, CVPAV, CCDS, Aest, CCDP

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34,200	7	4,886	5,264	,000 ^b
	Residual	108,600	117	,928		
	Total	142,800	124			

a. Dependent Variable: WOM

b. Predictors: (Constant), CVPAR, Func, CVPAA, CVPAV, CCDS, Aest, CCDP

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,046	1,188		,880	,381
	Aest	,270	,069	,380	3,892	,000
	Func	-,048	,093	-,046	-,515	,608
	CCDS	,177	,109	,184	1,624	,107
	CCDP	-,021	,097	-,023	-,218	,828
	CVPAV	,109	,148	,061	,741	,460
	CVPAA	-,091	,105	-,073	-,868	,387
	CVPAR	-,047	,124	-,032	-,382	,704

a. Dependent Variable: WOM

Low CVPA on Attitude

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,786 ^a	,618	,589	,75199

a. Predictors: (Constant), CVPAR, Func, CVPAV, CCDS, CVPAA, Aest, CCDP

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	84,237	7	12,034	21,280	,000 ^b
	Residual	52,025	92	,565		
	Total	136,262	99			

a. Dependent Variable: Att

b. Predictors: (Constant), CVPAR, Func, CVPAV, CCDS, CVPAA, Aest, CCDP

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,286	,661		,432	,667
	Aest	,533	,068	,646	7,818	,000
	Func	,144	,092	,111	1,569	,120
	CCDS	,047	,086	,047	,554	,581
	CCDP	,103	,085	,103	1,205	,231
	CVPAV	,040	,076	,036	,520	,604
	CVPAA	-,030	,073	-,028	-,409	,684
	CVPAR	,007	,076	,006	,095	,924

a. Dependent Variable: Att

Low CVPA on Purchase Intention

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,685 ^a	,469	,429	,89257

a. Predictors: (Constant), CVPAR, Func, CVPAV, CCDS, CVPAA, Aest, CCDP

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	64,732	7	9,247	11,607	,000 ^b
	Residual	73,295	92	,797		
	Total	138,027	99			

a. Dependent Variable: PI

b. Predictors: (Constant), CVPAR, Func, CVPAV, CCDS, CVPAA, Aest, CCDP

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,174	,784		,222	,825
	Aest	,400	,081	,481	4,943	,000
	Func	-,008	,109	-,006	-,071	,944
	CCDS	,269	,102	,263	2,645	,010
	CCDP	,003	,101	,003	,033	,973
	CVPAV	-,060	,091	-,053	-,658	,512
	CVPAA	-,142	,086	-,134	-1,643	,104
	CVPAR	,155	,091	,134	1,716	,090

a. Dependent Variable: PI

Low CVPA on WOM

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,504 ^a	,254	,197	,95174

a. Predictors: (Constant), CVPAR, Func, CVPAV, CCDS, CVPAA, Aest, CCDP

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28,326	7	4,047	4,467	,000 ^b
	Residual	83,334	92	,906		
	Total	111,660	99			

a. Dependent Variable: WOM

b. Predictors: (Constant), CVPAR, Func, CVPAV, CCDS, CVPAA, Aest, CCDP

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,295	,836		,353	,725
	Aest	,237	,086	,317	2,748	,007
	Func	,170	,116	,145	1,461	,148
	CCDS	-,034	,108	-,037	-,318	,751
	CCDP	,179	,108	,199	1,665	,099
	CVPAV	-,131	,097	-,130	-1,355	,179
	CVPAA	,013	,092	,014	,147	,884
	CVPAR	,094	,097	,090	,976	,332

a. Dependent Variable: WOM

Calculations t-values

Relationship	High CVPA		Low CVPA		Significance	
	Unst. b	St.error	Unst. b	St.error	t-value	Sig
Aesthetic → Attitude	0.556	0.053	0.533	0.068	0.19	No
Aesthetic → Purchase intention	0.416	0.064	0.400	0.081	0.11	No
Aesthetic → Word of mouth	0.270	0.069	0.237	0.086	0.21	No